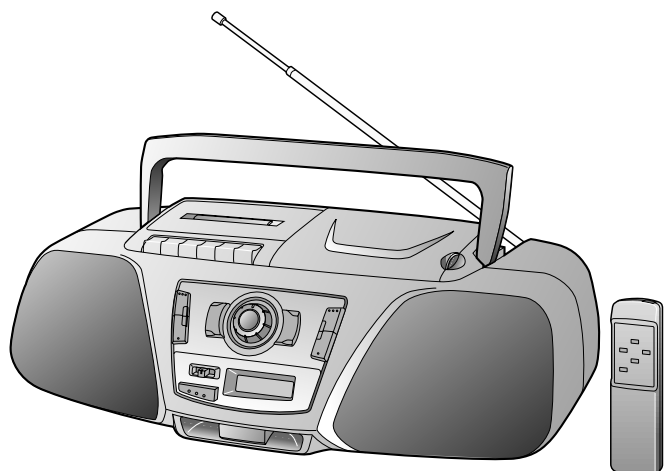


SHARP SERVICE MANUAL

No. S5929QTCD161/



QT-CD161(S) QT-CD141(BK)

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

Illustration: QT-CD161



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PARTS GUIDE/EXPLODED VIEW	
PACKING OF THE SET (FOR U.S.A. ONLY)	

DIFFERENCE BETWEEN QT-CD161 AND QT-CD141

SECTION	QT-CD161	QT-CD141
REMOTE CONTROL	○	×
HEADPHONE SOCKET	○	×

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

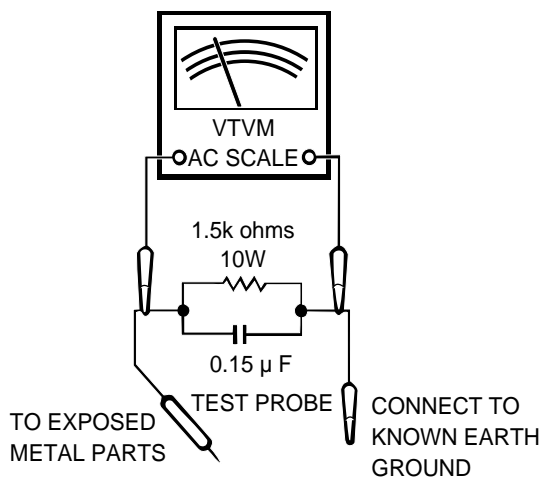
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)

BEFORE RETURNING THE AUDIO PRODUCT

(Fire & Shock Hazard)

Before returning the audio product to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the audio product.
2. Inspect all protective devices such as insulating materials, cabinet, terminal board, adjustment and compartment covers or shields, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - * Plug the AC line cord directly into a 120 volt AC outlet.
 - * Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as conduit or electrical ground connected to earth ground.
 - * Use a VTVM or VOM with 1000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See diagram).
 - * Connect the resistor connection to all exposed metal parts having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.



All check must be repeated with the AC line cord plug connection reversed.

Any reading of 0.3 volt RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the audio product to the owner.

SPECIFICATIONS

● General

Power source: AC 120 V, 60 Hz

DC 12 V ["D" size (UM/SUM-1, R20 or HP-2) battery \times 8]
 DC 3 V ["AA" size (UM/SUM-3, R6 or HP-7) battery \times 2 for tuner memory]

Power Stand-by; 1.5 W

consumption: Power on; 20 W

Output power: FTC; 2.0 W min. RMS per channel into 8 ohms from 150 Hz to 20 kHz, with no more than 10 % total harmonic distortion.

RMS; 2.3 W/CH
 (DC operation, 10 % T.H.D.)

Speakers: 4" (10 cm) full-range speaker \times 2

Output Headphones; 16-50 ohms

terminals: (recommended; 32 ohms)

Dimensions: Width; 18-15/16" (480 mm)
 Height; 6-1/16" (153 mm)
 Depth; 10" (254 mm)

Weight: 7.1 lbs. (3.2 kg) without batteries

● Radio

Frequency FM; 87.5 - 108 MHz

range: AM; 530 - 1,720 kHz

● Tape recorder

Frequency

response: 50 - 14,000 Hz (Normal tape)

Signal/noise

ratio: 50 dB

Wow and

flutter: 0.25 % (WRMS)

Motor: DC 12 V electric governor

Bias system: AC bias

Erase

system: Magnet erase

● Compact disc player

Type: Compact disc

Signal Non-contact, 3-beam semi-conductor laser pickup

readout:

Audio

channels: 2

Quantization: 16-bit linear quantization

Filter: 4-times oversampling digital filter

D/A

converter: 1-bit D/A converter

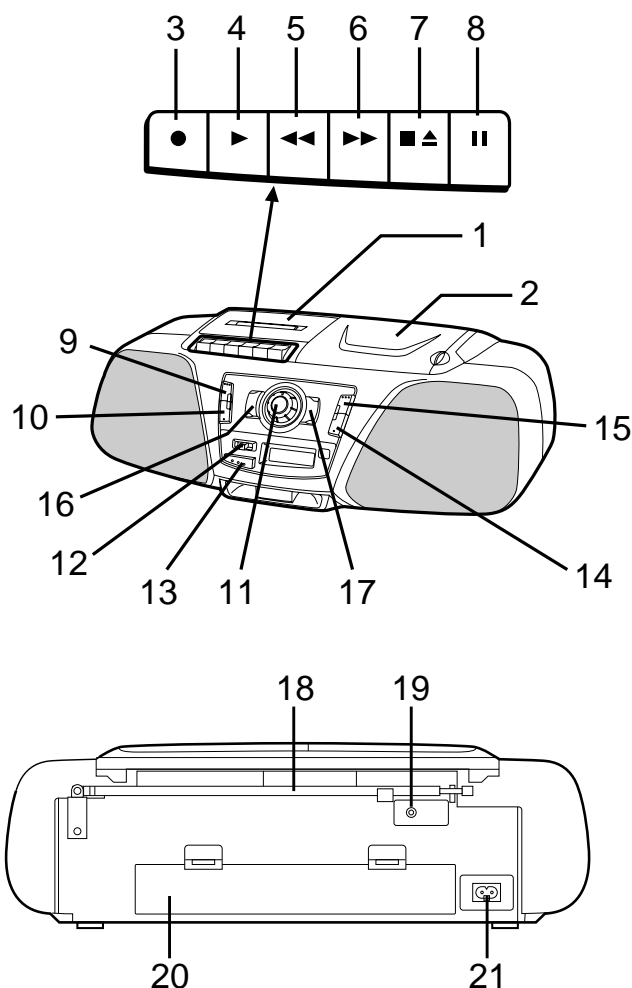
Wow and Unmeasurable

flutter: (less than 0.001% W. peak)

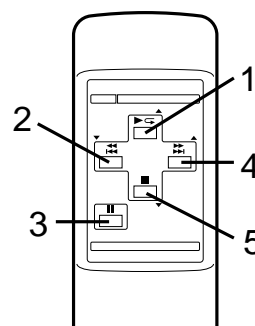
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

1. Cassette Compartment
2. CD Compartment
3. (TAPE) Record Button: ●
4. (TAPE) Play Button: ►
5. (TAPE) Rewind Button: ◀◀
6. (TAPE) Fast Forward Button: ▶▶
7. (TAPE) Stop/Eject Button: ■/▲
8. (TAPE) Pause Button: ||
9. Band/Pause: ||
10. Tuner Memory
11. Volume
12. Power, On/Function Switch
13. Extra Bass Button: X-BASS
14. (CD) Track Down: ∨ /Review Button: ◀◀/|◀◀
15. (CD) Track Up: ∧ /Cue Button: ▶▶/▶▶|
16. (TUNER)Tuning: ∨ /(CD) Stop Button: ■
17. (TUNER) Tuning: ∧ /(CD) Play/Repeat Button: ▶↺
18. FM Telescopic Rod Aerial
19. Headphone Socket (QT-CD161 Only)
20. Battery Compartment
21. AC Power Input Socket



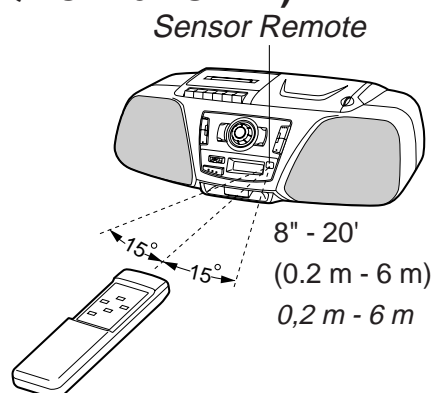
- Remote control (QT-CD161 ONLY)
1. (TUNER) Tuning: ∧ /(CD) Play/Repeat Button: ▶↺
 2. (CD) Track Down: ∨ /Review Button: ◀◀/|◀◀
 3. Band/Pause: ||
 4. (CD) Track Up: ∧ /Cue Button: ▶▶/▶▶|
 5. (TUNER)Tuning: ∨ /(CD) Stop Button: ■



REMOTE CONTROL (QT-CD161 ONLY)

Notes concerning use:

- Replace the batteries if the operating distance is reduced or if the operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.



DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear Cabinet	1. Screw (A1) x10 2. Socket (A2) x1	4-1 4-2
2	Top Cabinet (with CD Mechanism/ Tape Mechanism/ Main PWB)	1. Knob (B1) x1 2. Screw (B2) x3 3. Socket (B3) x1	4-2
3	Main PWB/ Switch PWB/ Headphones PWB (QT-CD161 Only)	1. Screw (C1) x9 2. Socket (C2) x4 3. Soldering (C3) x3	4-3,5-1 4-3,5-1 4-3
4	Tape Mechanism	1. Screw (E1) x4	5-1
5	CD Mechanism	1. Screw (F1) x3	5-1
6	Terminal PWB	1. Screw (G1) x5 2. Hook (G2) x1	5-2
7	Battery PWB	1. Hook (H1) x2	5-3

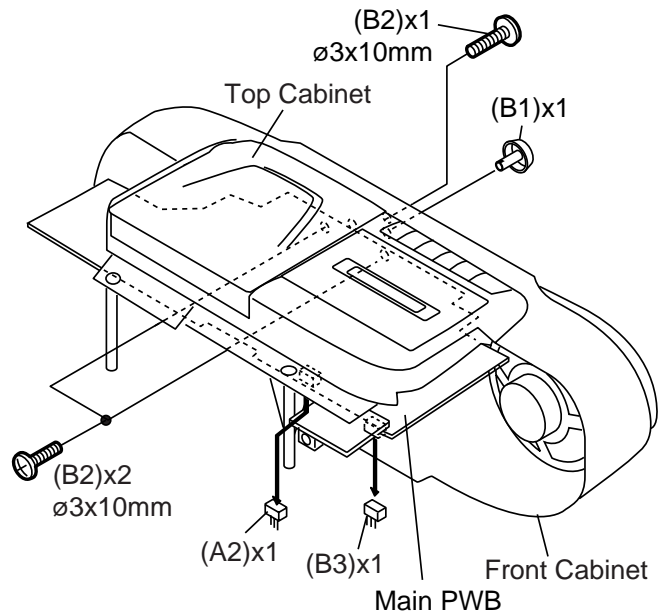


Figure 4-2

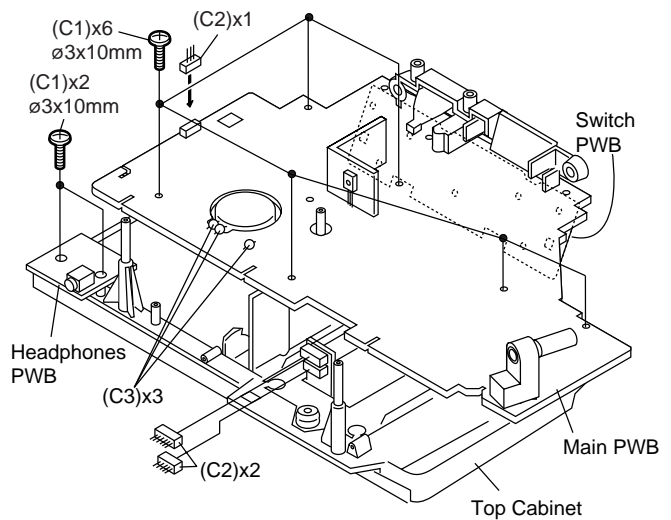


Figure 4-3

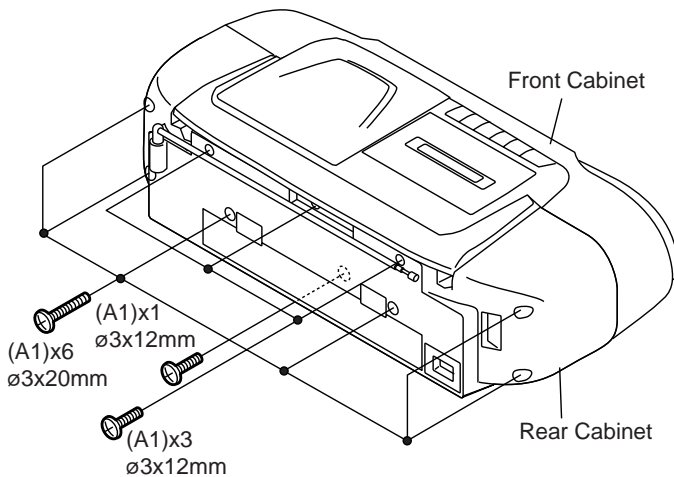


Figure 4-1

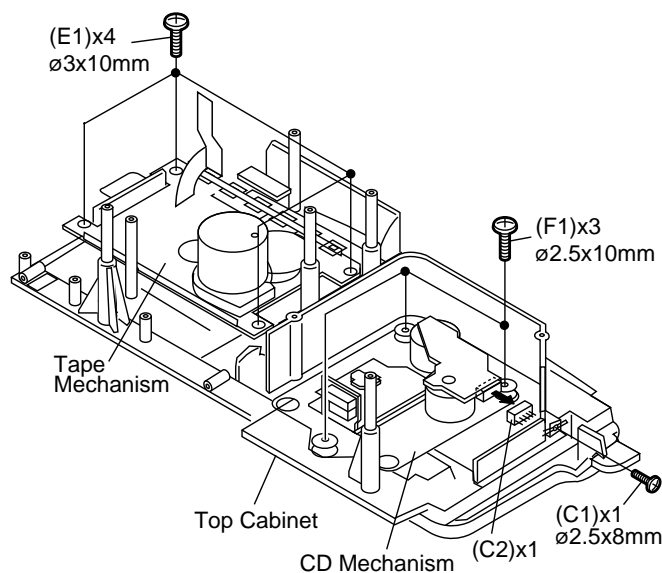


Figure 5-1

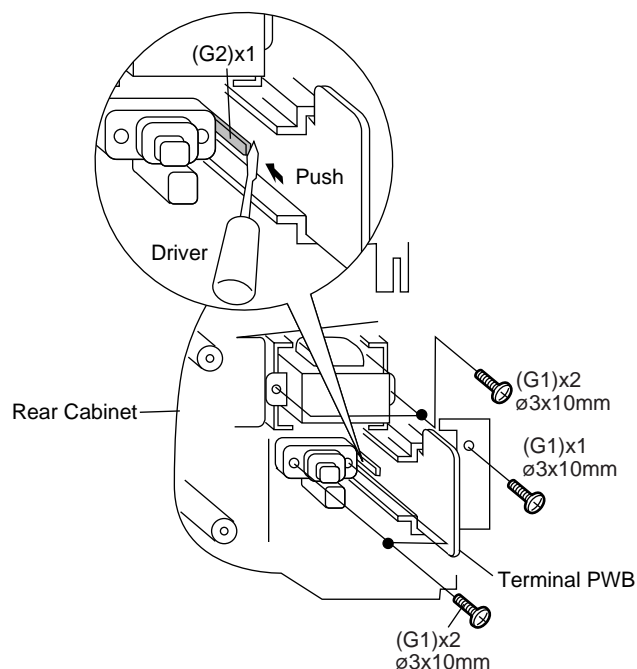


Figure 5-2

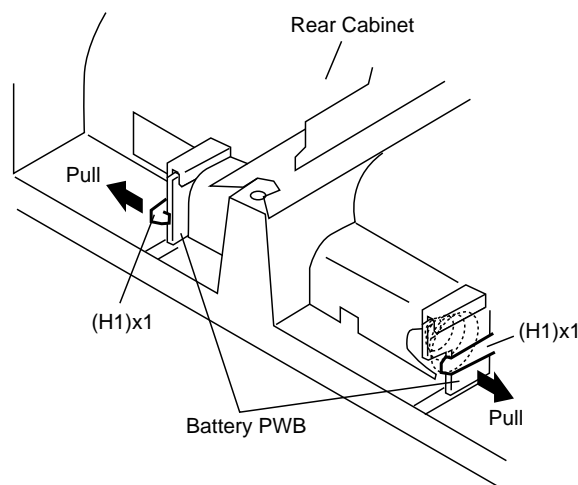


Figure 5-3

REMOVING AND REINSTALLING THE MAIN PARTS

CD MECHANISM SECTION

Perform steps 1, 2, 3 and 5 of the disassembly method to remove the CD mechanism.

How to remove the pickup (See Fig. 5-4.)

1. Remove the screws (A1) x 2 pcs., to remove the shaft (A2) x 1 pcs.
2. Remove the stop washer (A3) x 1 pcs., to remove the gear (A4) x 1 pcs.
3. Remove the pickup.

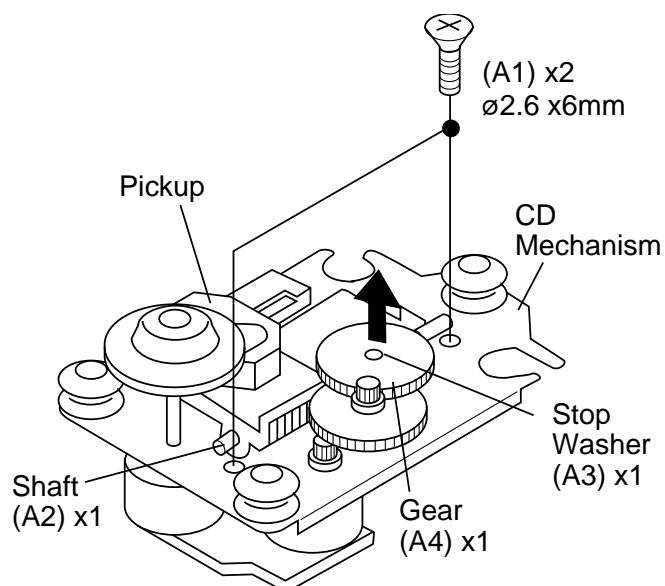


Figure 5-4

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
PLAY: TW-2412	Over 120 g

• Torque Check

Torque Meter	Specified Value
Play: TW-2111	25 to 65 g.cm
Fast Forward: TW-2231	60 to 130 g.cm
Rewind: TW-2231	60 to 130 g.cm

• Head Azimuth

Torque Meter	Specified Value
MTT-114	Output: Speaker Terminal (CNP201 Load resistance: 8 ohms)

• Tape Speed

Test Tape	Adjusting Point	Specified Value	Instrument Connection
MTT-111	In motor	3,000 \pm 90 Hz	Output: Speaker Terminal (CNP201 Load resistance: 8 ohms)

TAPE SECTION

Position of each switch or control	
Volume control Function switch X-BASS	Max Tape/Power Off On

• Bias Oscillation

Adjustment Point	Specified Value	Instrument Connection
L301	82 kHz \pm 6 kHz – 6 kHz	Pin 2 of CNP201

• Playback Amplifier Sensitivity Check

Test Tape	Specified Value	Instrument Connection
MTT-118	1.8 V \pm 3 dB	Speaker Terminal (Load resistance: 8 ohms)

TUNER SECTION

fL: Low-range frequency

fH: High-range frequency

• FM RF

Signal generator: 1 kHz, 75 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
Band Coverage	—	87.5 MHz	(fL): L2 2.0 \pm 0.1 V	*1
RF	90.0 MHz (10~30 dB)	90.0 MHz	L1	*2

*1. Input: Antenna, Output: TP1

*2. Input: Antenna, Output: Speaker Terminal

• Detection

Signal generator: 10.7 MHz, FM sweep generator

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	10.7 MHz	98.00 MHz	T1(Turn the core of T1 fully counter-clockwise.	Input: Pin 1 of IC1 Output: TP2

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,720 kHz	T3	*1
Band Coverage	—	530 kHz	(fL): L4 1.4 \pm 0.05 V	*3
Tracking	600 kHz 1,400 kHz	600 kHz 1,400 kHz	(fL): L3 (fH): TC1	*2

*1. Input: Antenna, Output: Pin19 of IC2

*2. Input: Antenna, Output: Speaker Terminal

*3. Input: Input is not connected, Output: TP1

• VCO Frequency

Adjusting Point	Specified Value	Instrument Connection
VR1	76 kHz \pm 200 Hz	Pin 13, pin 21 and ground of IC2

Note:

After preparing the test circuit shown in Fig. 6-1, connect the Pin 13, Pin 21 and ground of the IC2 with the test circuit, and measure the value. At this time, apply a standard unmodulated signal input and adjust the VCO.

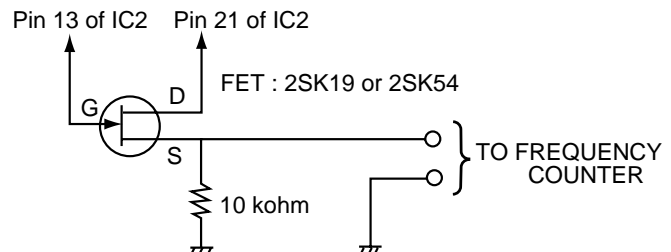


Figure 6-1 VCO FREQUENCY TEST CIRCUIT

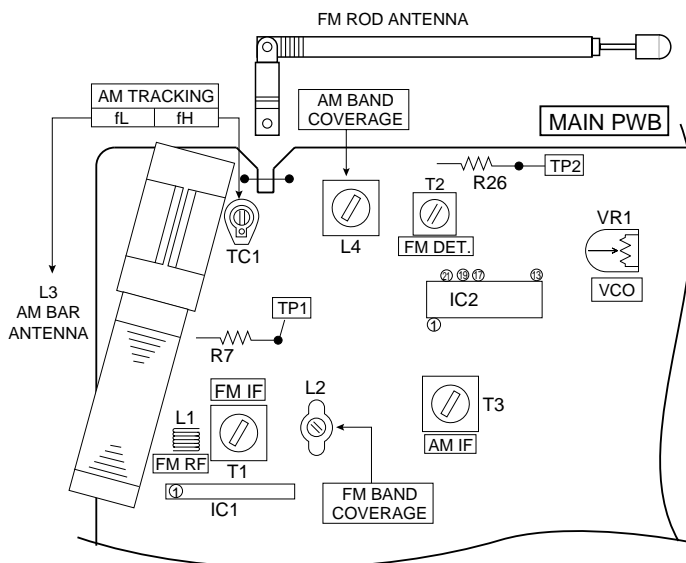


Figure 6-2 ADJUSTMENT POINTS

TURNING ON THE TEST MODE

The types of test mode for this microcomputer and specific test mode turning-on procedure are as follows. Only the unit key is used. The remote control key is not valid. The power must be turned on while two keys are held down.

(1) CD test mode function

The power is turned while the (PRESET \checkmark) and STOP (TUNING \checkmark) keys are held down.

(2) Tuner test mode function

The power is turned on while the (PRESET \checkmark) and PAUSE (BAND) keys are held down.

(3) LCD test mode function

The power is turned on while the (PRESET \checkmark) and MEMORY keys are held down.

CD TEST MODE

When the CD test mode is turned on, the CD pickup is moved to the innermost periphery, and the following indication appears. The operation of CD test mode is as follows.

Indication



(1) The CD pickup is moved with the unit UP key and DOWN key.

UP key: The pickup is slid to the outer periphery.

DOWN key: The pickup is slid to the inner periphery. However, when it reaches the innermost periphery, it does not move further inward.

(2) When the PLAY key is pressed in stop state, the laser diode turns on if CD lid is closed.

Indication



(3) When the PLAY key is pressed in laser ON state, playback is started from the current position of pickup.

Indication



The current playback track No. and time are indicated.

(4) When the STOP key is pressed during playback, the laser goes out and playback is stopped, and the process returns to step (1). (The pickup position does not change.)

(5) When the MEMORY key is pressed during playback, tracking servo ON/OFF is performed. (Even if the playback is stopped in servo OFF state, the servo is turned on when the playback is restored.)

Indication



The current pickup position and time are indicated. (When the pickup is moved with the UP/DOWN key, the time at that point is indicated.)

Others

While the CD lid is open (LID-SW = "H"), the test mode is turned on but the operations of step (2) and subsequent steps are not performed. The operation of step (1) is performed.

Contents of error display

Error display	Contents of an error
Er 01	when TOC information cannot be read normally.
Er 02	When a PU-IN SW detection error occurs.

TUNER TEST MODE

The tuner test mode is intended to store the measurement frequency for adjustment and inspection in the preset memory CH without frequency adjustment in the case of tuner adjustment in the production line.

When the power is turned on while the PRESET \checkmark (DOWN) key and BAND (PAUSE) key are held down together, the frequency for adjustment measurement of destination (specified according to AREA terminal) is preset-stored in the preset memory CH. (The frequency to be preset-stored for specific destination is as shown in the next page.)

QT-CD161/141

In the tuner test mode the band is FM, and the mode is FM STEREO in case of start-up.

As with the ordinary mode, when the PRESET \vee key is pressed for 1ch of preset memory CH, maximum CH is set. When the PRESET \wedge key is pressed for maximum CH of preset memory CH, 1ch is set.

The BAND key is valid. As in the ordinary mode, the band/FM MONO/STEREO mode can be switched.

To exit from the tuner test mode, turn off the power to the microcomputer.

Indication



The indication is the same as that of ordinary operation. However, when the test mode is turned on, the indication shown left lights for one second.

Preset frequencies for various destinations (random preset memory)

BAND (CH)	U.S.A.	EUROPE	GENERAL 1	GENERAL 2
1	FM 87.5M	FM 87.50M	FM 87.50M	FM 87.5M
2	FM 108.0M	FM 108.00M	FM 108.00M	FM 108.0M
3	FM 98.0M	FM 98.00M	FM 98.00M	FM 98.0M
4	FM 90.0M	FM 90.00M	FM 90.00M	FM 90.0M
5	FM 106.0M	FM 106.00M	FM 106.00M	FM 106.0M
6	AM 530K	AM 522K	AM 531K	AM530K
7	AM1720K	AM1620K	AM1602K	AM1620K
8	AM 990K	AM 990K	AM 990K	AM 990K
9	AM600K	AM 603K	AM 603K	AM 600K
10	AM 1400K	AM 1404K	AM 1404K	AM 1404K
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
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23				
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26				
27				
28				
29				
30				

Note:

The unit shown in table is Hz. K is x1000. M is x1,000,000.

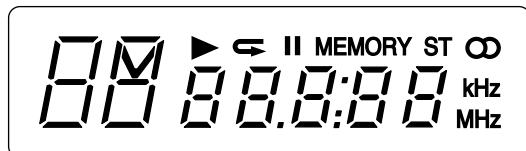
The slash indicates that data are not stored in the memory.

FM is stereo mode.


LCD TEST MODE

When the LCD test mode is turned on, all the segments of LCD light.

Indication



NOTES ON SCHEMATIC DIAGRAM

- **Resistor:**
To differentiate the units of resistors, the symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is an ohm resistor. The resistor designated "Fusible" is a fuse type resistor
- **Capacitor:**
To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
(CH), (TH), (RH), (UJ): Temperature compensation
(ML): Mylar type
(P.P.): Polypropylene type
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
- 1. Tuner
(): AM mode
Marking except for (): FM mode
- 2. CD
(): Play mode
Marking except for (): Stop state
- 3. Deck section
(): Record mode
Marking except for (): Playback mode
Display / Control section:
(): Active state
Marking except for (): CD Function mode at stop state
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- Parts marked with " ⚠ " () are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW102	RECORD/PLAYBACK	PLAYBACK
SW201	FUNCTION/POWER	TAPE—TUNER— CD/ OFF—ON
SW202	X-BASS	OFF—ON
SW501	TUNER UP	OFF—ON
SW502	TUNER DOWN	OFF—ON
SW503	BAND	OFF—ON

REF. NO	DESCRIPTION	POSITION
SW504	MEMORY	OFF—ON
SW505	PRESET DOWN	OFF—ON
SW506	PRESET UP	OFF—ON
SW507	CD LID OPEN/CLOSE	OFF—ON
SW601	TAPE MAIN	OFF—ON
SW702	PICKUP IN	OFF—ON

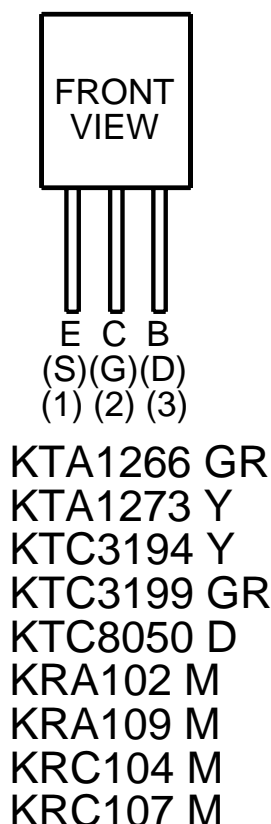
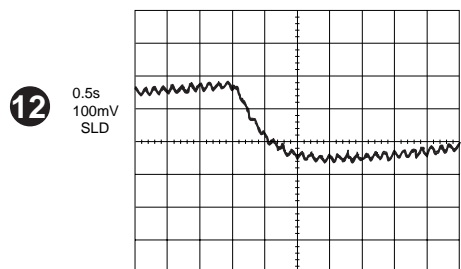
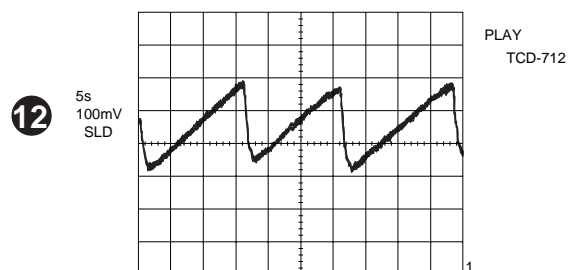
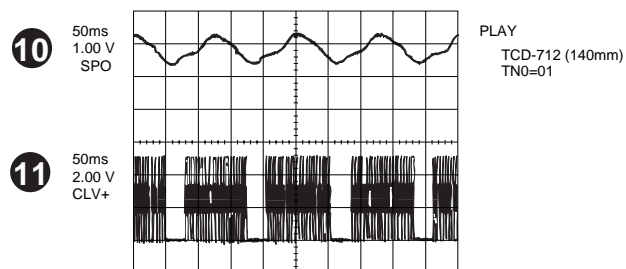
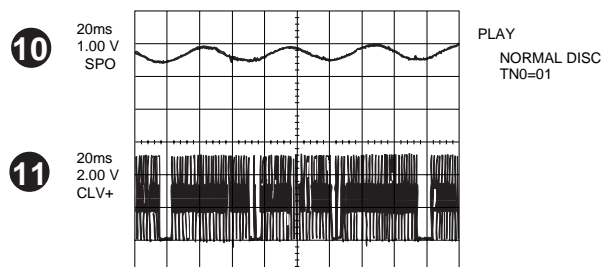
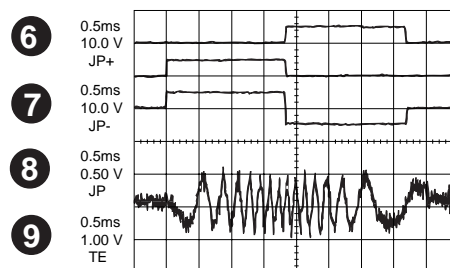
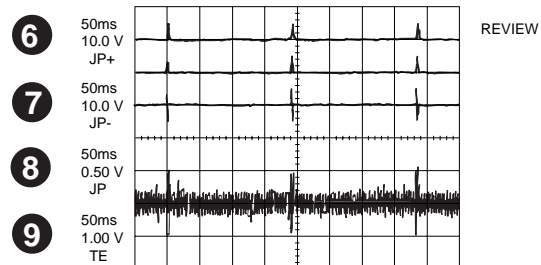
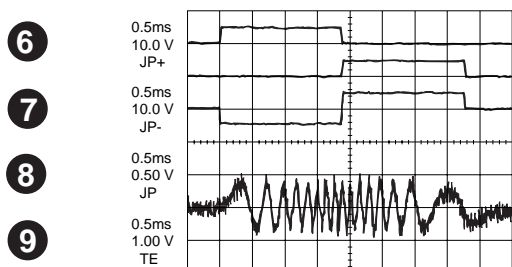
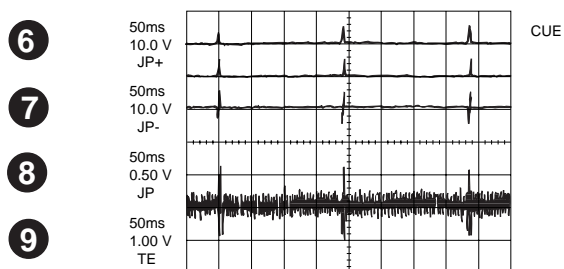
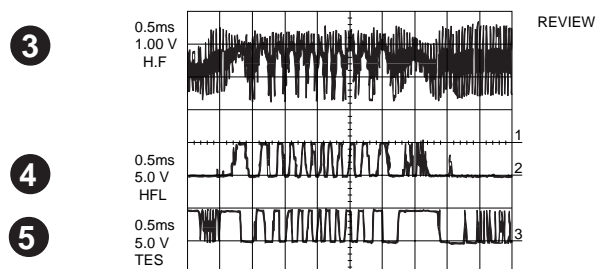
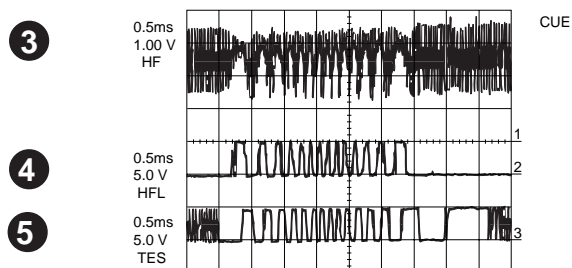
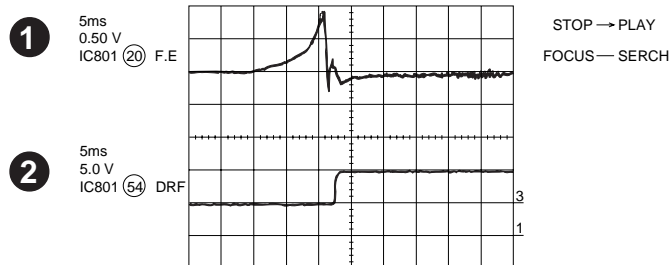


Figure 9 TYPES OF TRANSISTOR

WAVEFORMS OF CD CIRCUIT



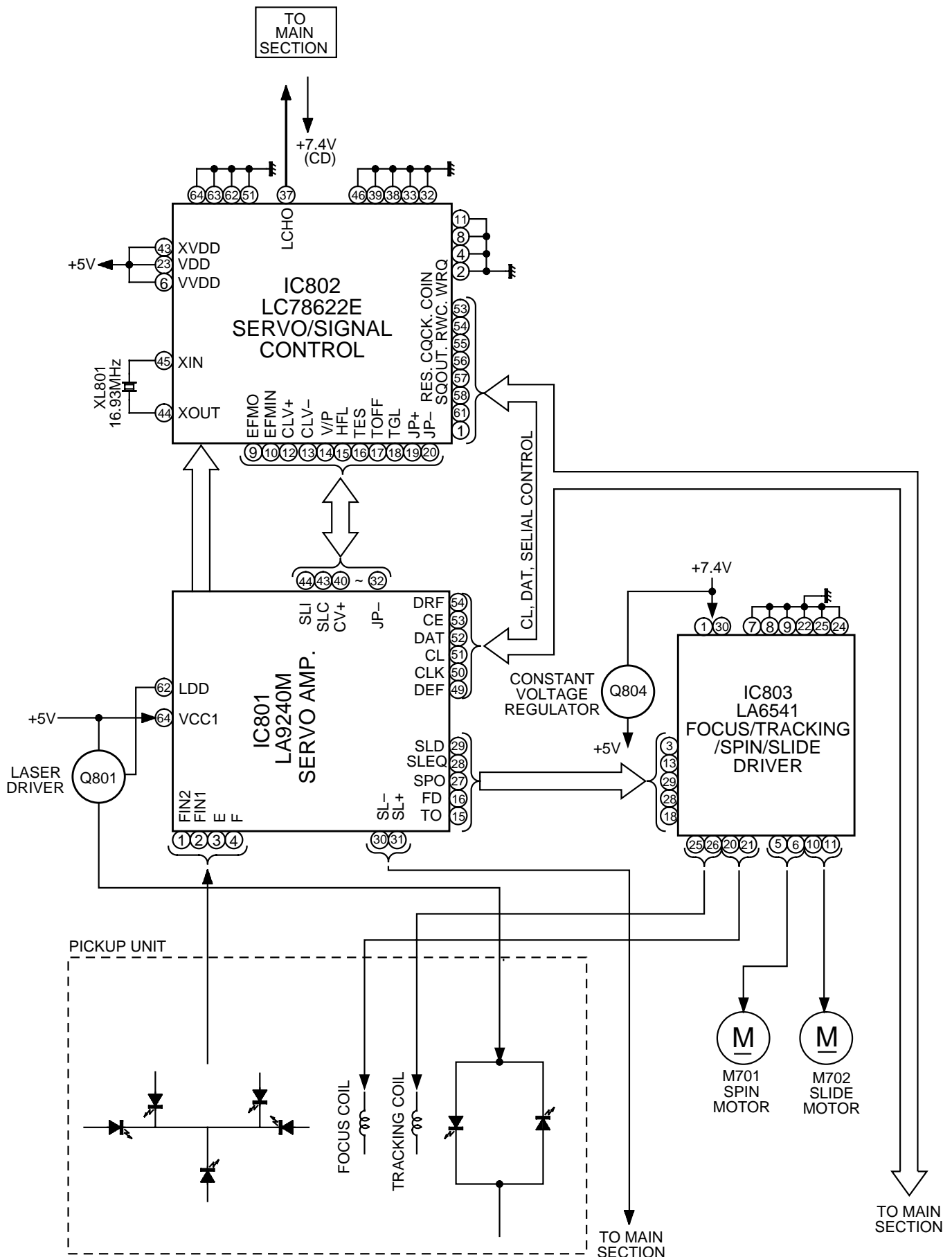


Figure 11 BLOCK DIAGRAM (1/3)

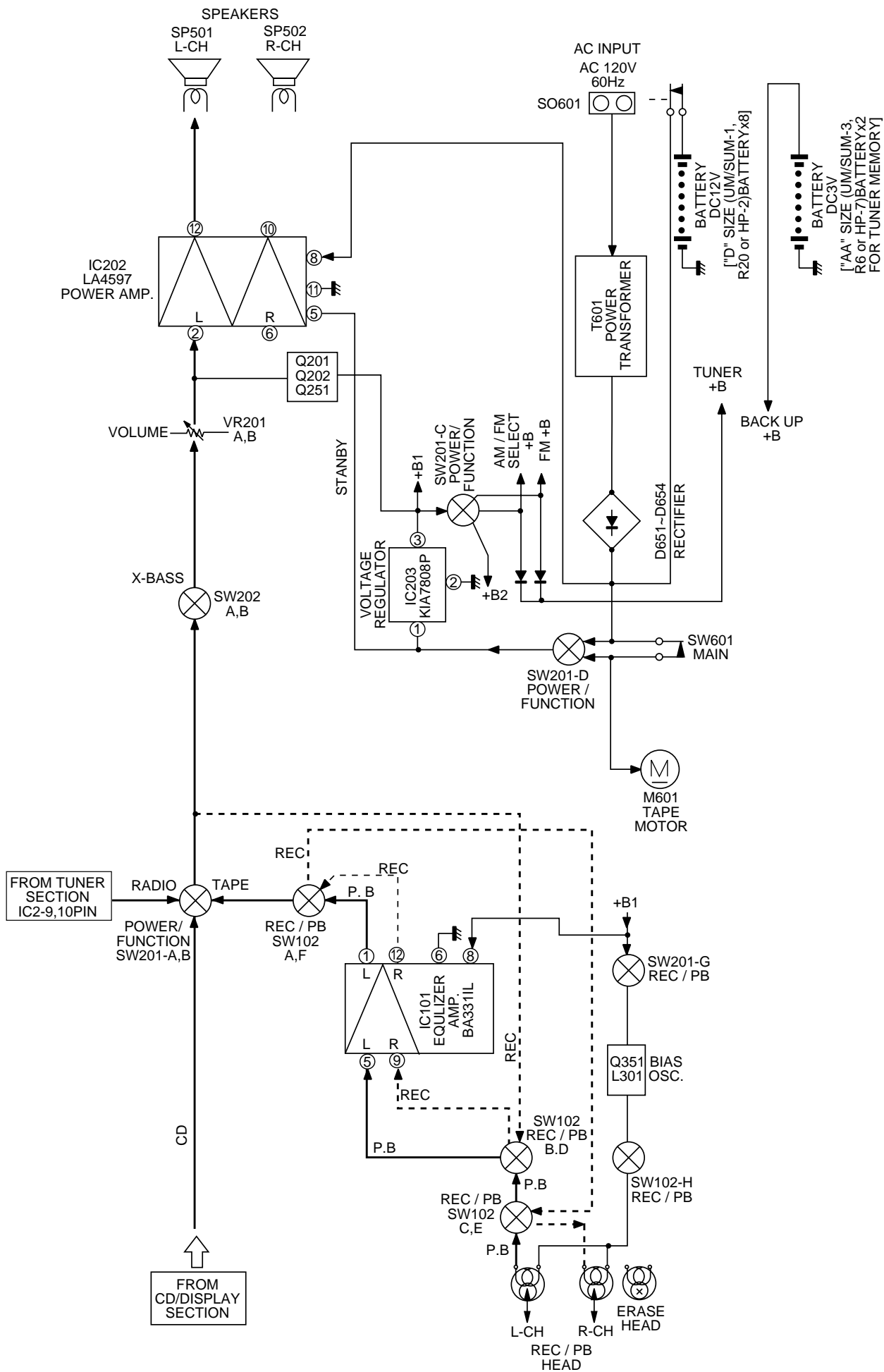


Figure 12 BLOCK DIAGRAM (2/3)

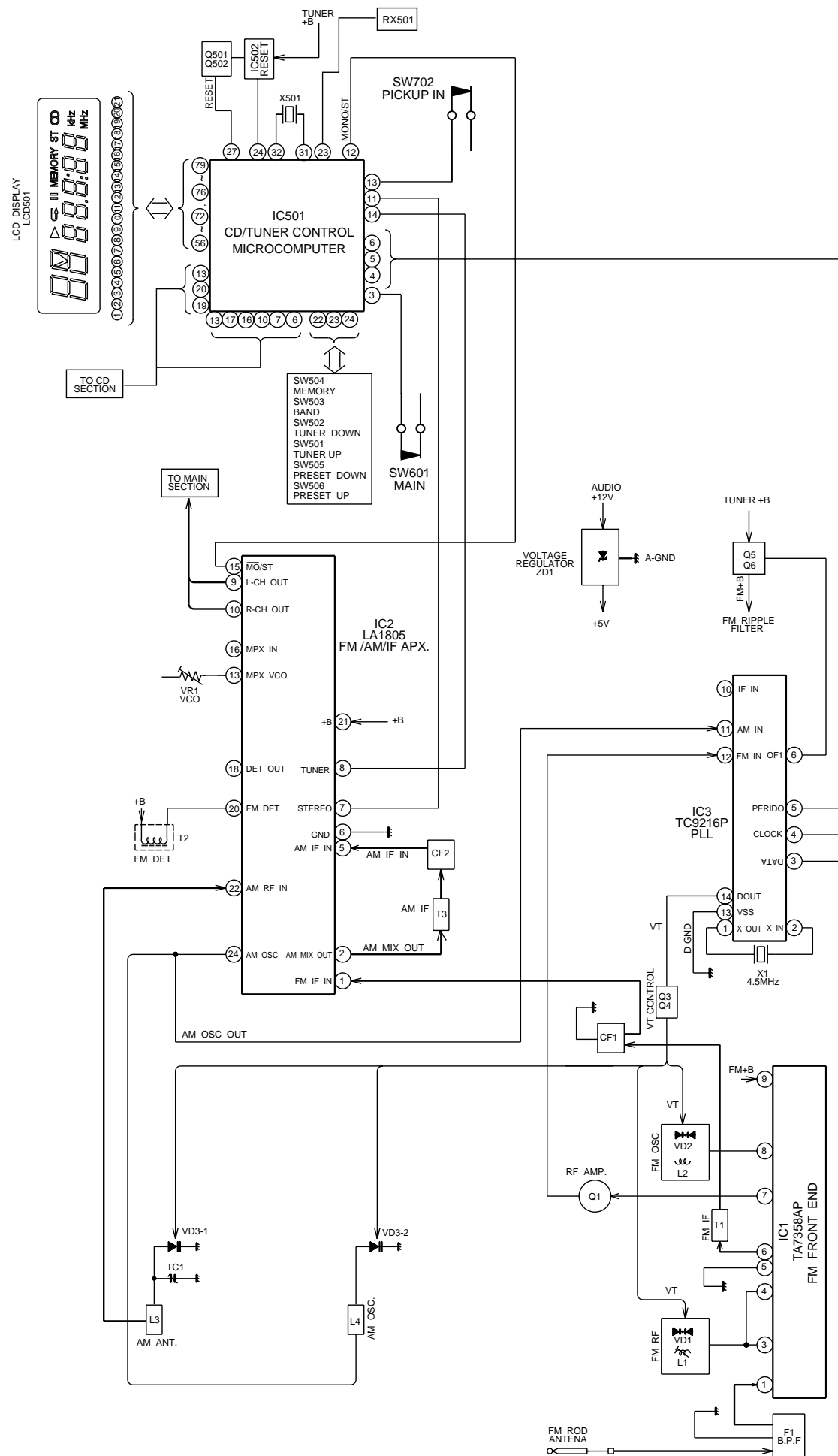


Figure 13 BLOCK DIAGRAM (3/3)

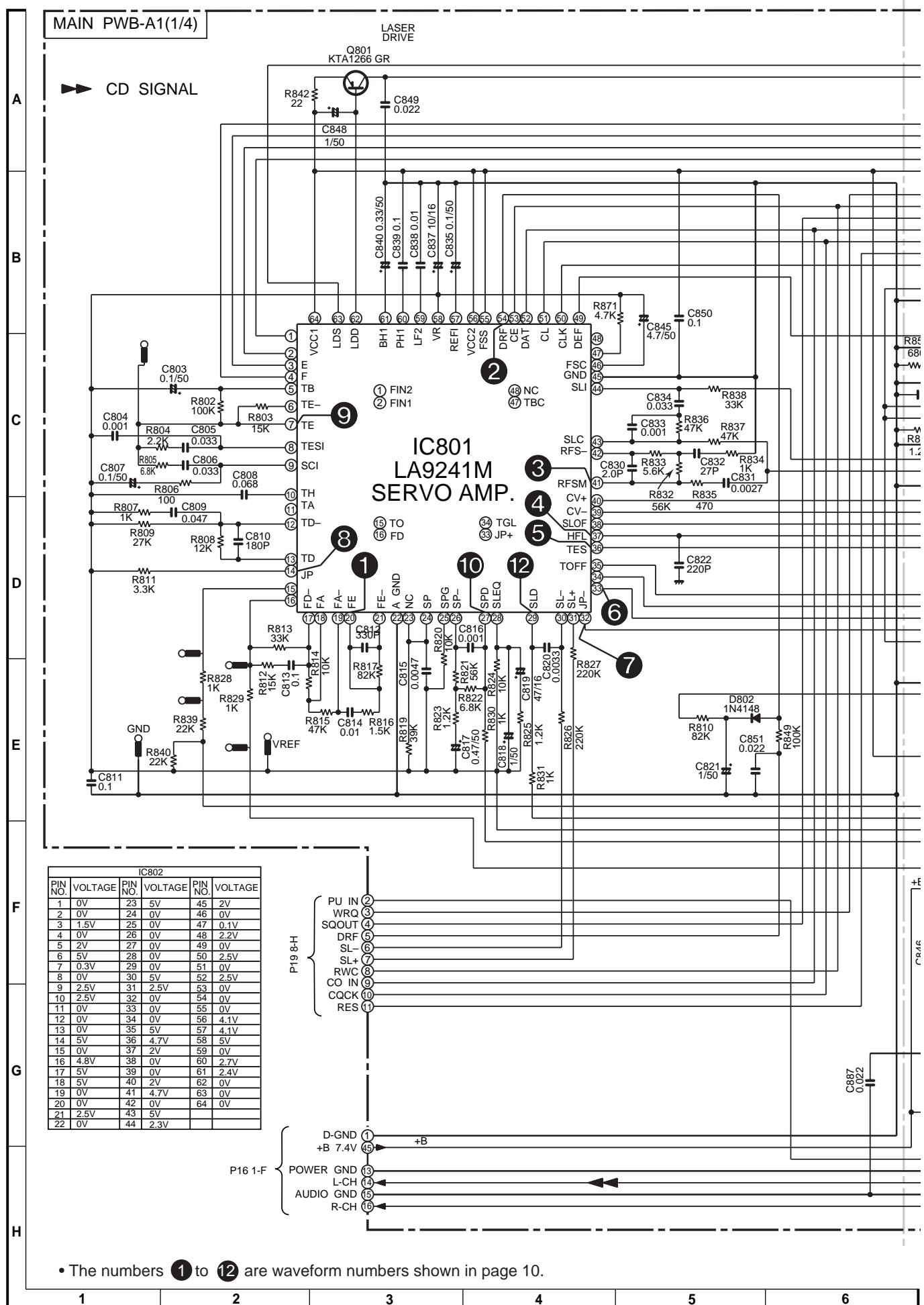
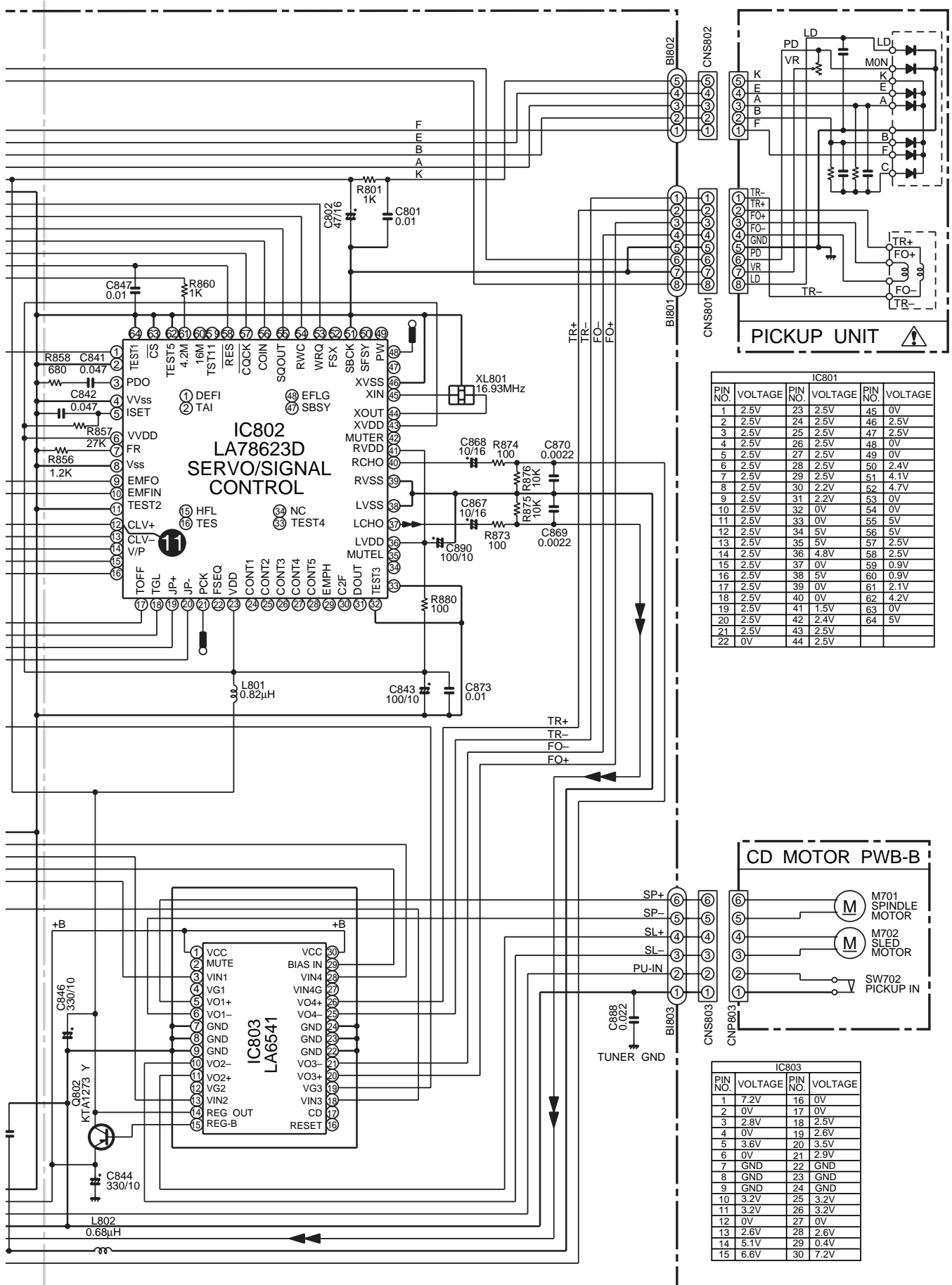


Figure 14 SCHEMATIC DIAGRAM (1/6)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 9.

7	8	9	10	11	12
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Figure 15 SCHEMATIC DIAGRAM (2/6)

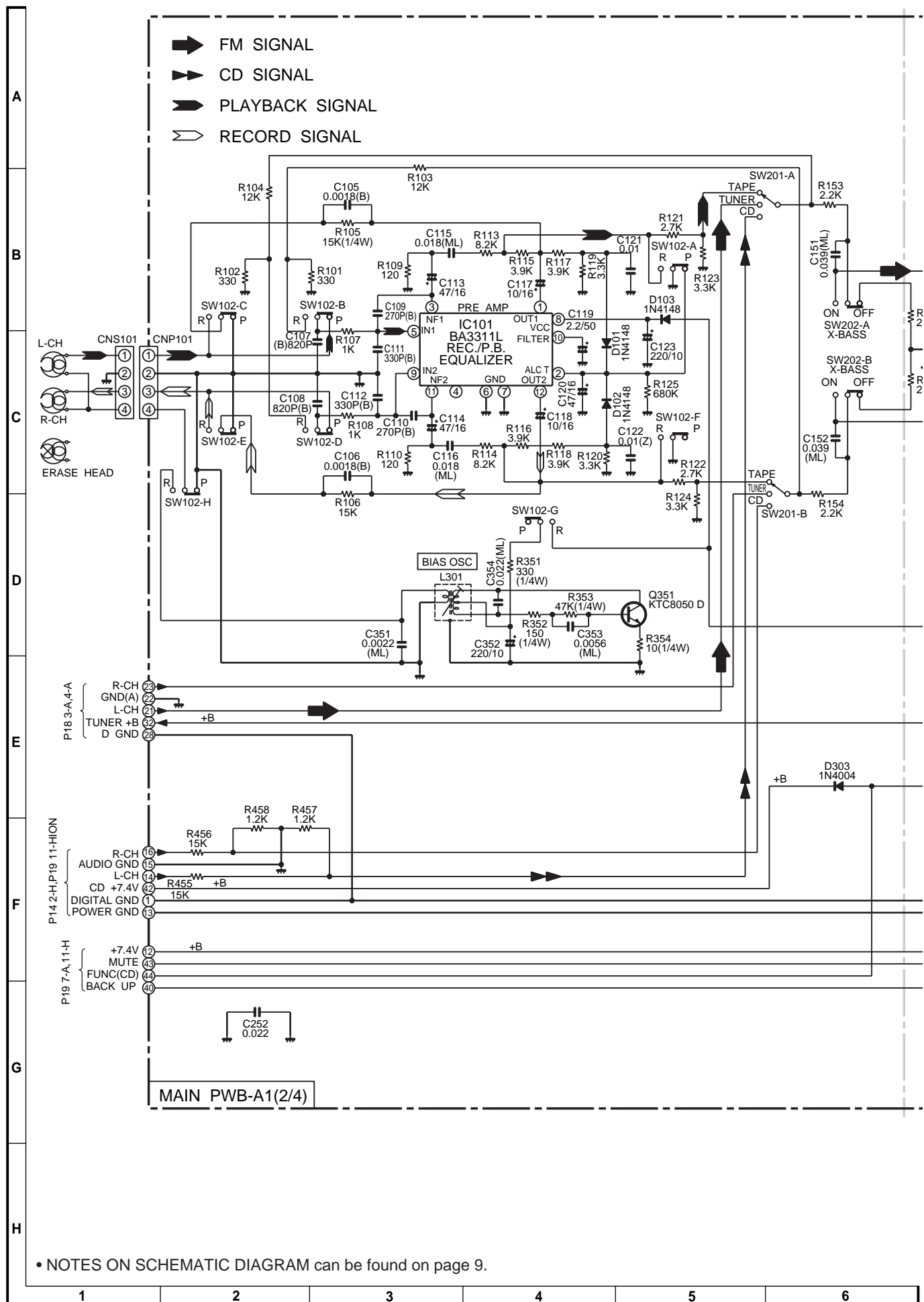
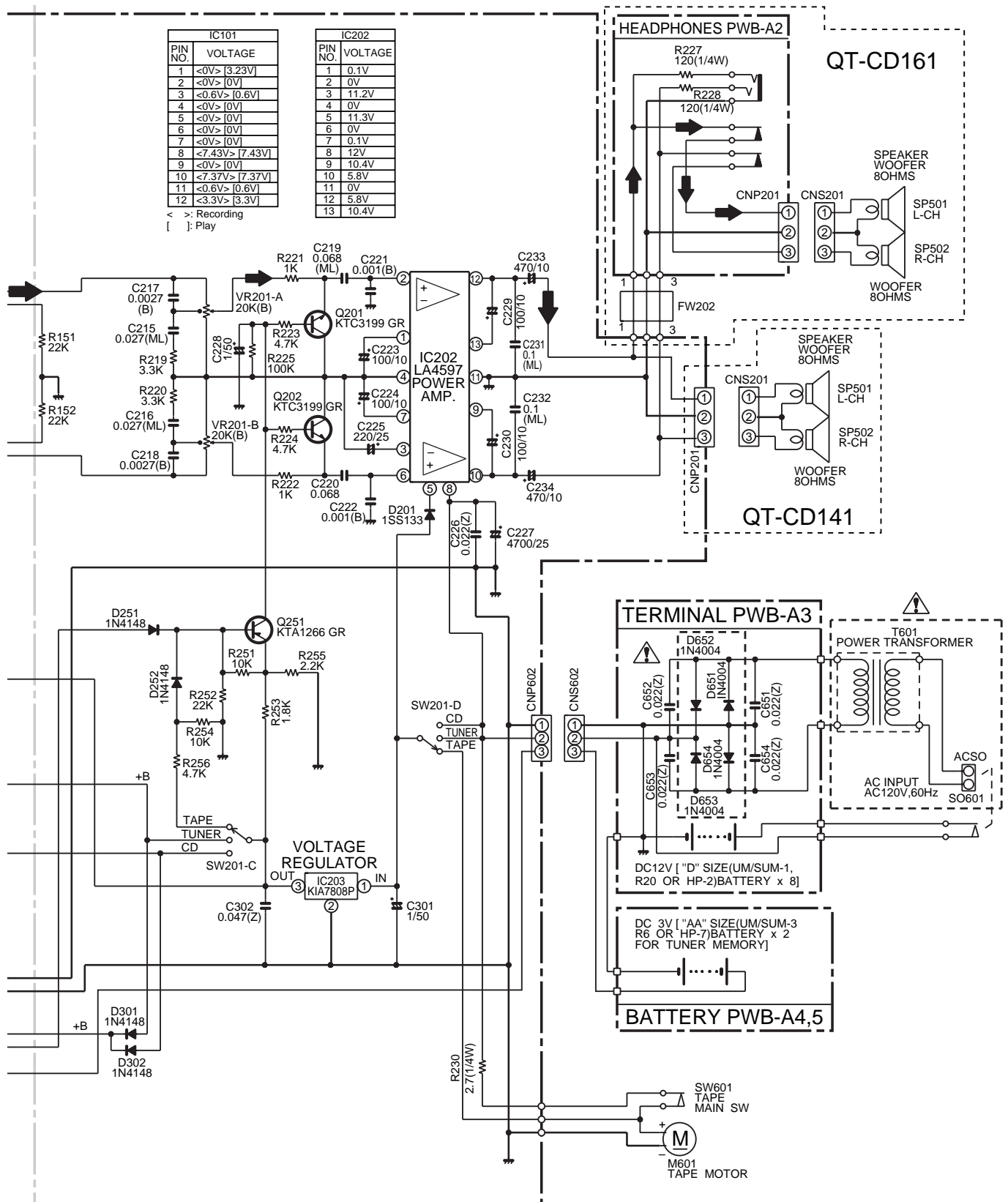


Figure 16 SCHEMATIC DIAGRAM (3/6)



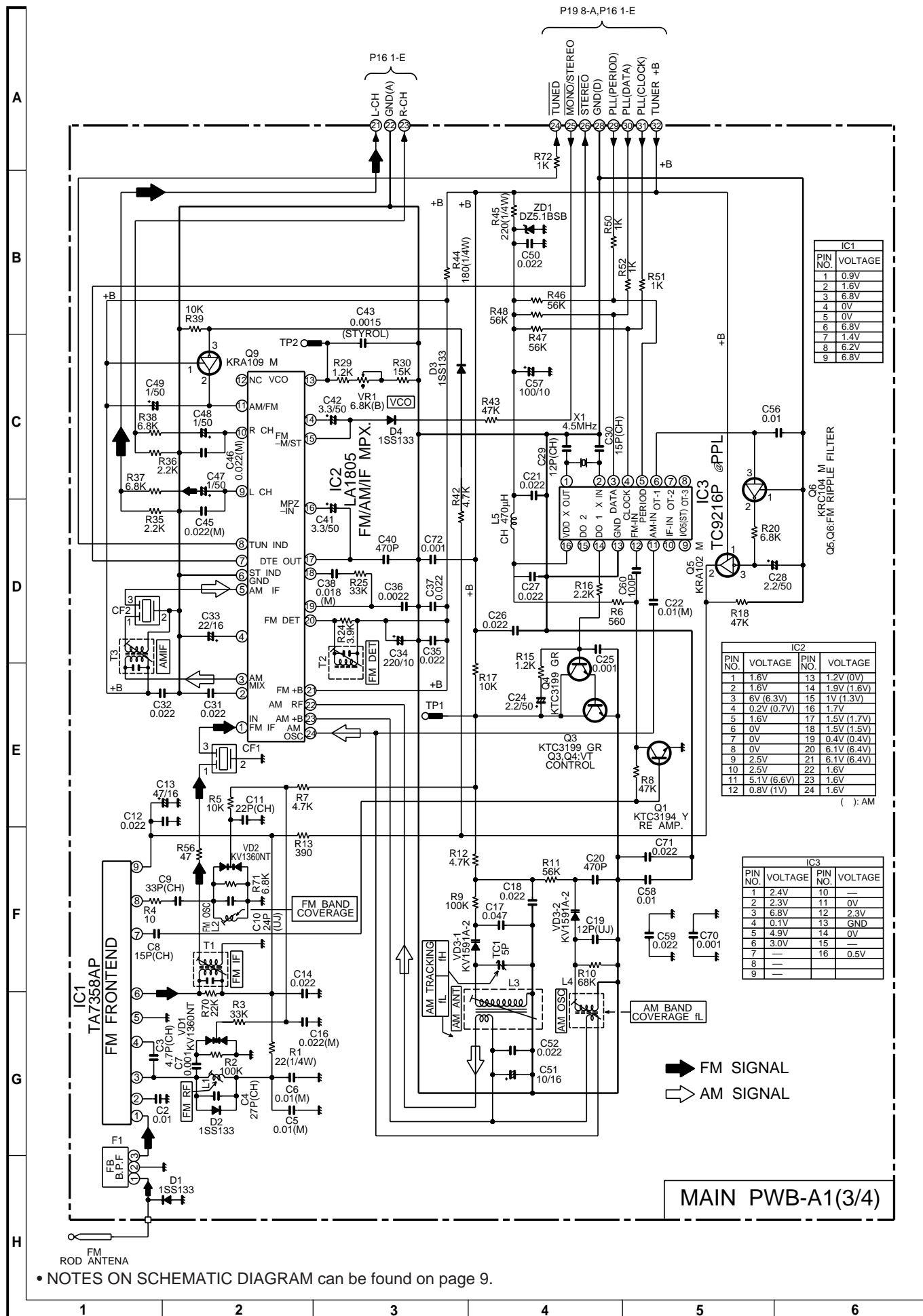


Figure 18 SCHEMATIC DIAGRAM (5/6)

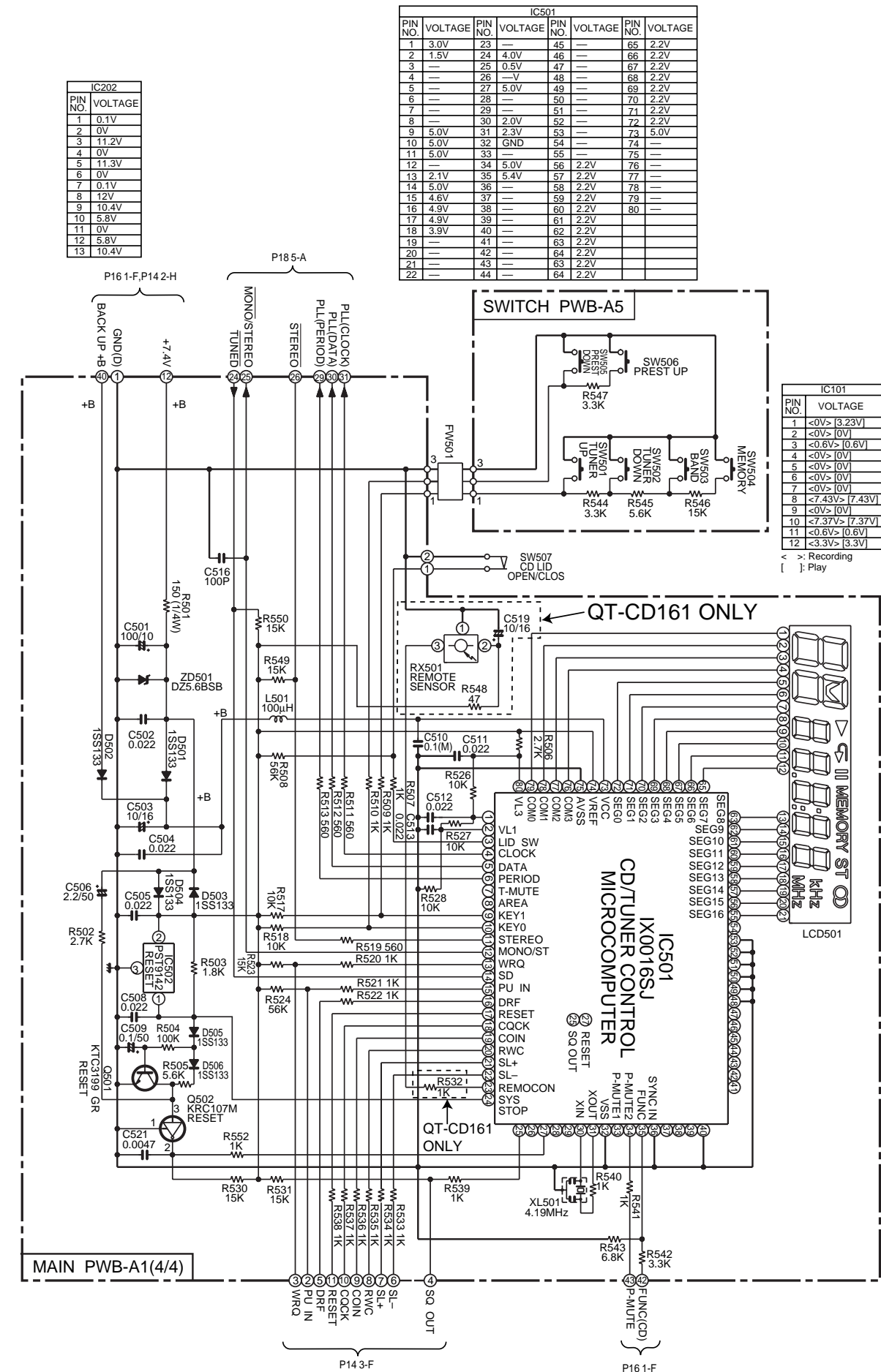


Figure 19 SCHEMATIC DIAGRAM (6/6)

- 20 -

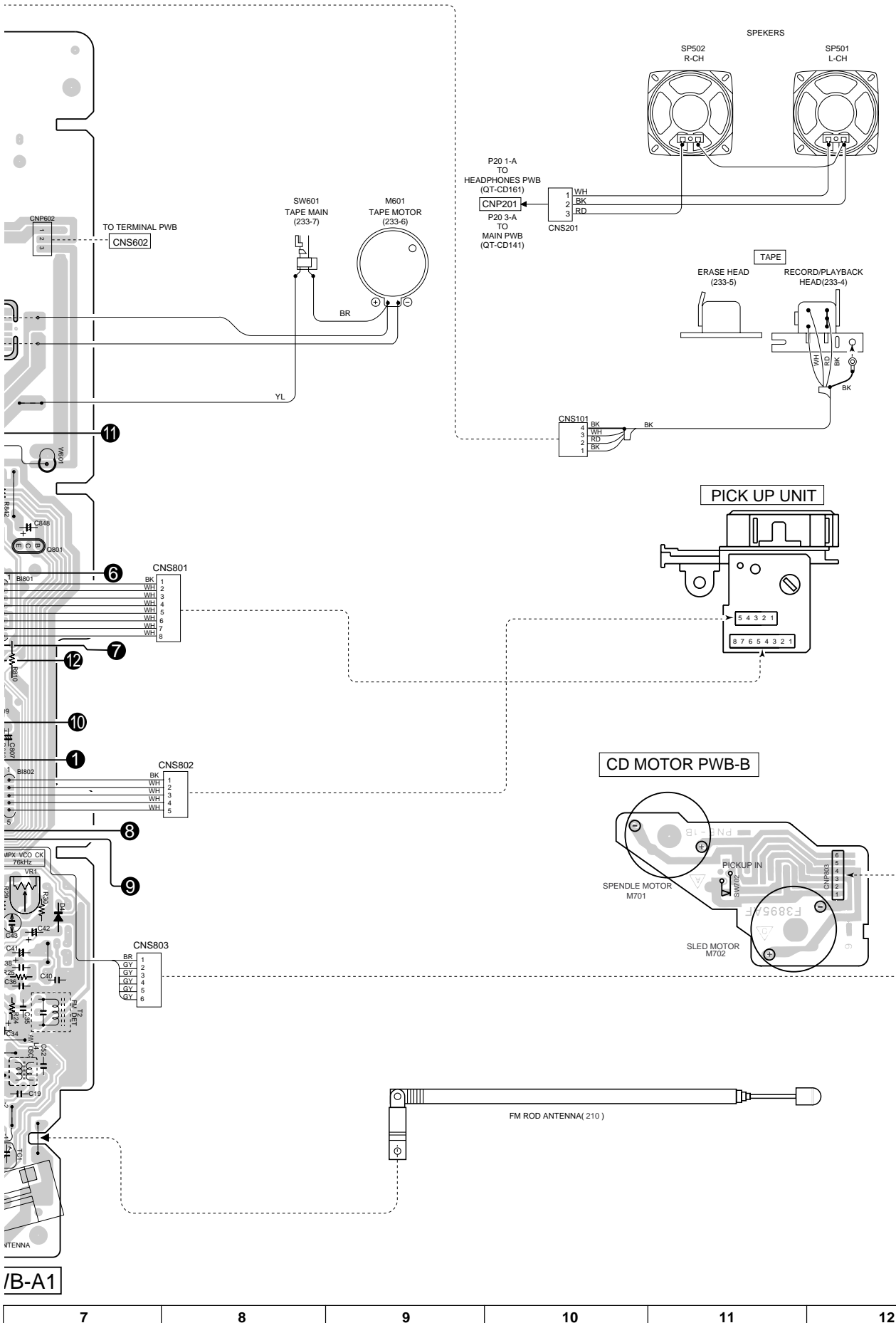


Figure 21 WIRING OF P.W.BOARD (2/3)

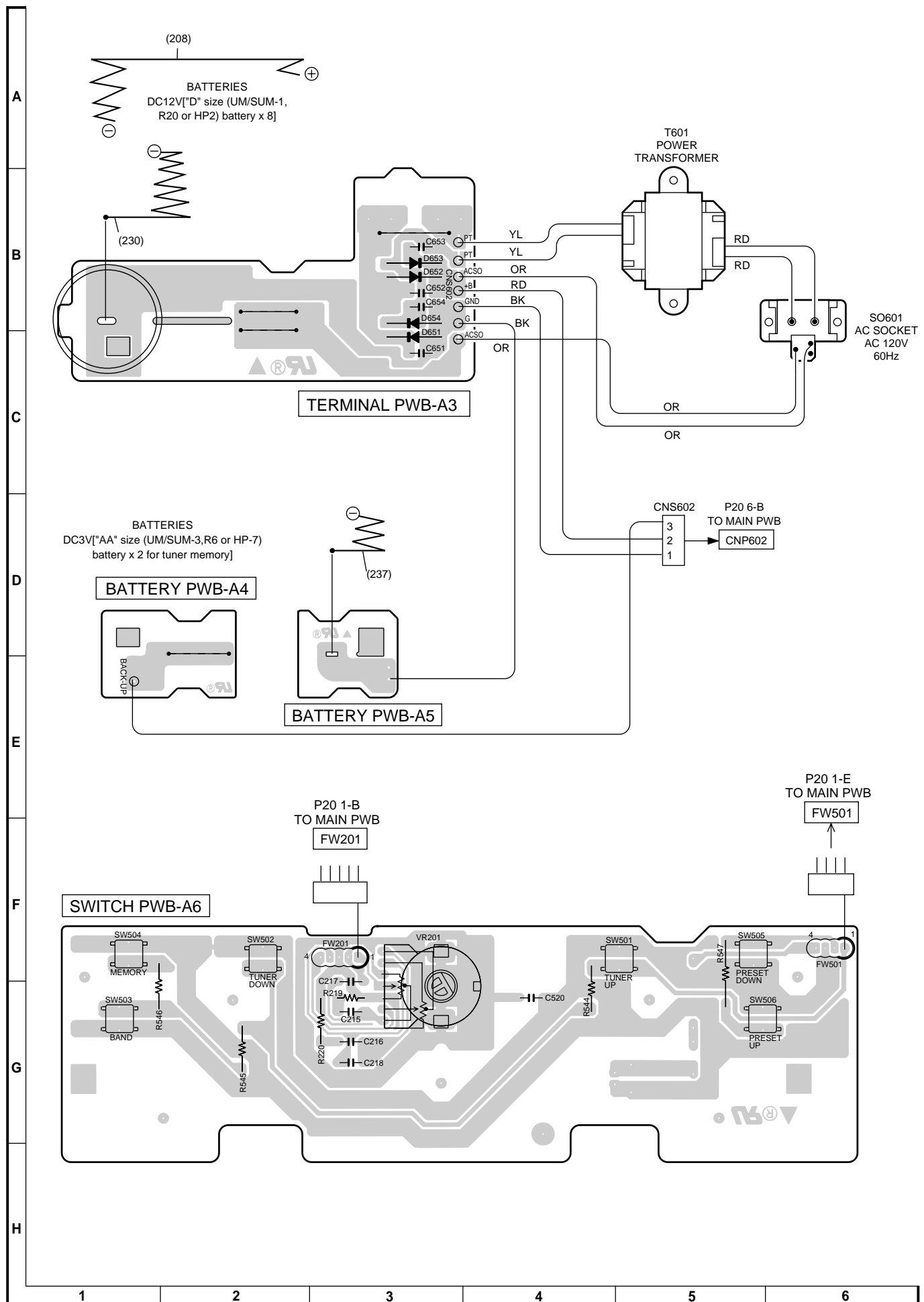


Figure 22 WIRING OF P.W. BOARD (3/3)

TROUBLESHOOTING (CD SECTION)

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the troubleshooting instructions.

"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

Dust gradually accumulates on the objective lens during use, and it may degrade performance.

To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has ▲ the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30 - 50 operations, however if the brushes become worn out earlier then please replace the cleaner disc.
 - If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
 - Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
 - The CD cleaner disc must not be used on car CD player or on computer CD ROM drives.
- All rights reserved. Unauthorized duplicating, broadcasting and renting product is prohibited by law.

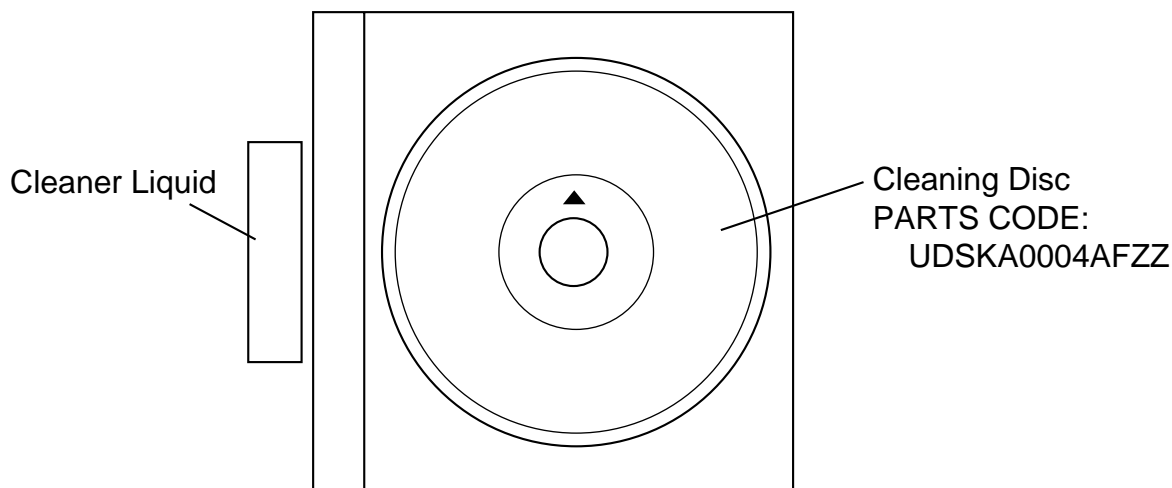


Figure 23

When the CD does not function

When the CD section does not operate When the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the troubleshooting instructions.

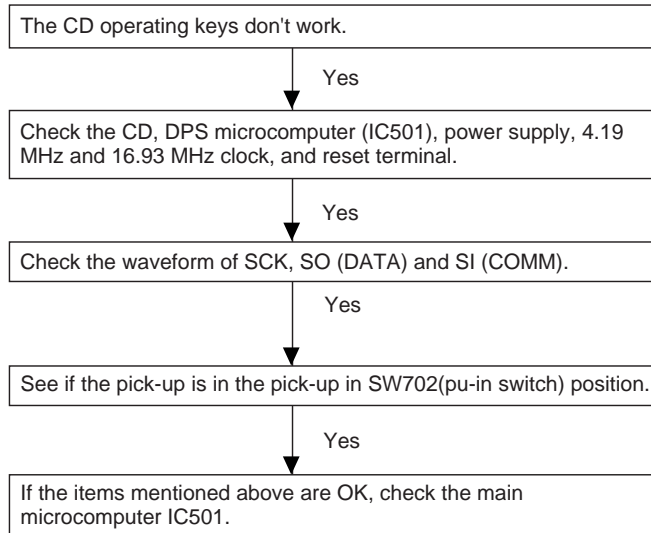
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust or other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

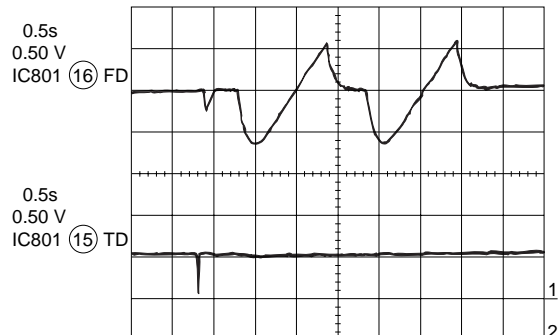
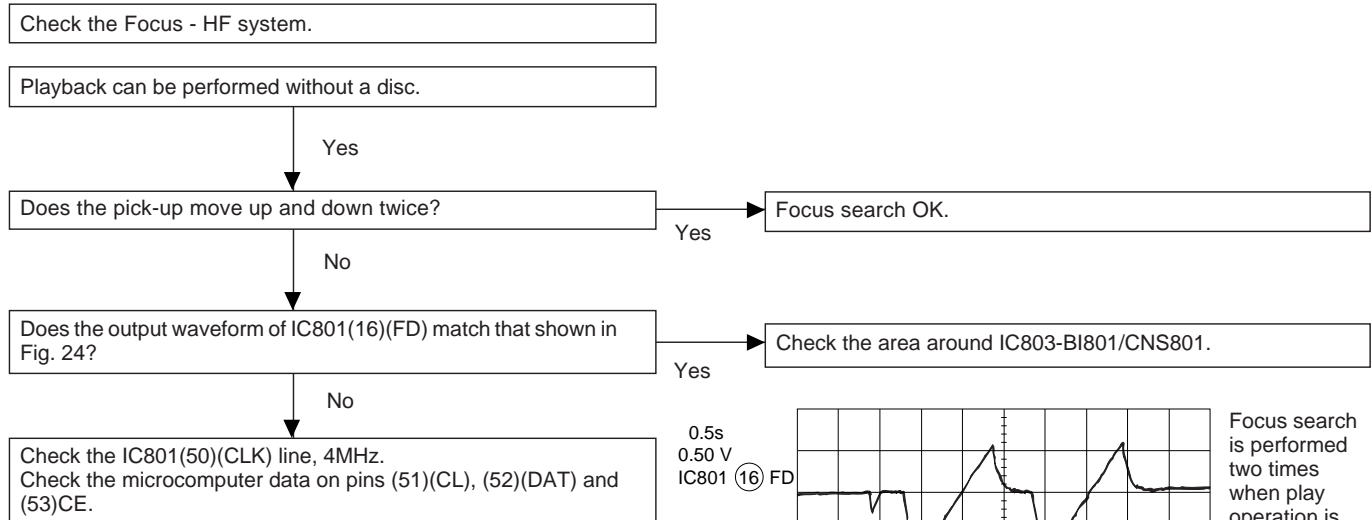
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

• The CD function will not work.



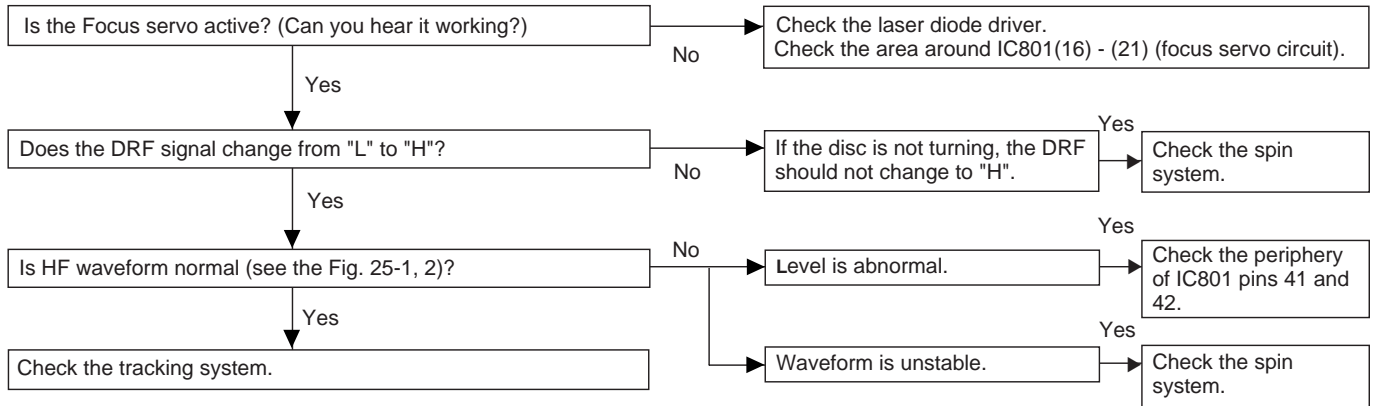
• The CD operating keys work.



Focus search is performed two times when play operation is done without disc.

Figure 24

• Playback can only be performed when a disc is loaded.



HF
0.1V/DIV
0.5μsec/DIV(DC)
IC801 (41)
(When playing back the disc)

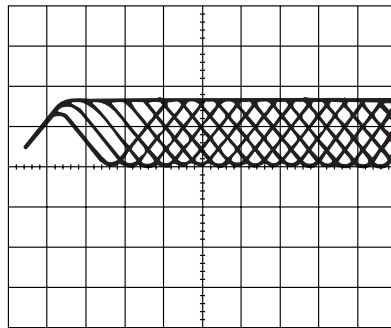
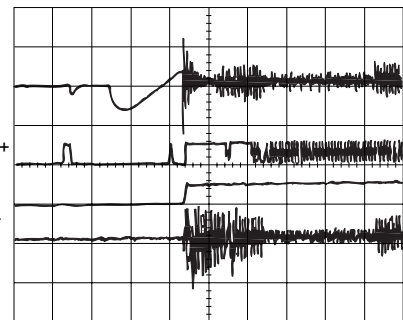


Figure 25-1

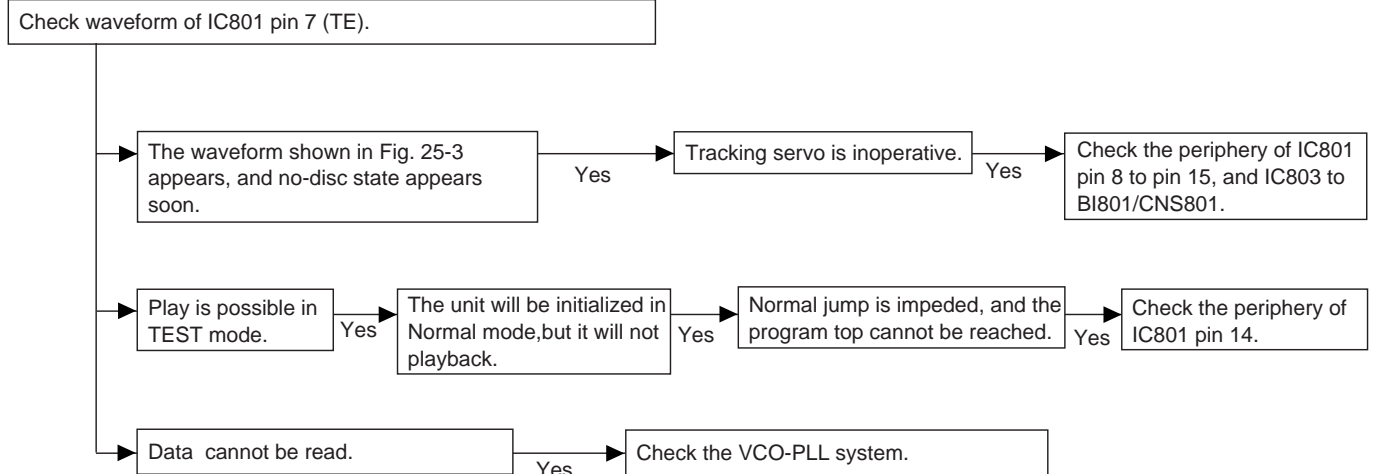
0.5s
1.00 V
IC801 (16) FD
0.5s
10.0 V
IC801 (12) CLV+
0.5s
10.0 V
IC801 (54) DRF
0.5s
2.00 V
IC801 (7) TE



Waveform in case of normal playback

Figure 25-2

• Check the tracking system.



5ms
1.00 V
IC801 (7) TE

5 ms
5.0 V
IC801 (54) DRF

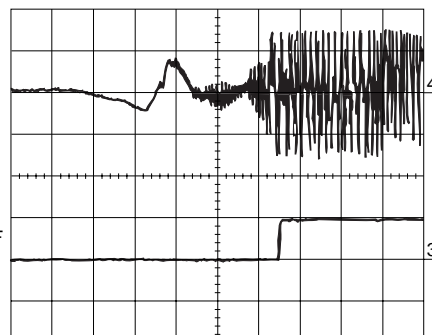


Figure 25-3

• Checking the spin system.

Play operation is performed without disc.

Yes

The turntable rotates a little.

Yes

The spin driver circuit is normal.

No

The turntable fails to rotate or rotates at high speed.

Yes

Check the periphery of IC801 pins 23 to 27, pin 39 and pin 40, IC802 pin 12 and pin 13, IC803 to BI803/CNS803.

• Checking the VCO-PLL system

Play operation is performed when disc exits.

Yes

Although HF waveform is normal, TOC data cannot be read.

Yes

Check PDO waveform (Fig. 26).

Error

Check the IC801 pins 43 and 44, IC802 pins 3, 5, 7, 9 and 10.

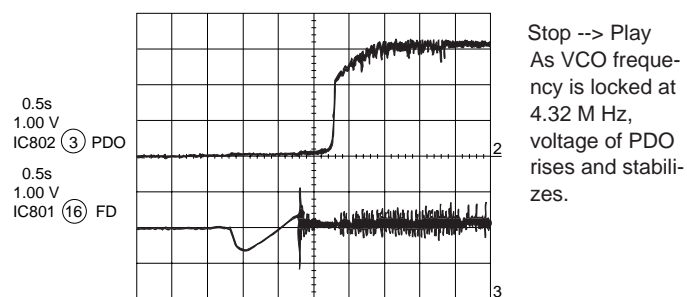


Figure 26

• Although HF waveform is normal and the time indication is normal, no sound is emitted.

Check IC802 pin 48 (EFLG).

No

Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check IC802 pins 37 and 40.

Abnormal

Check the periphery of IC802 (OPAMP).

FUNCTION TABLE OF IC

IC501 RH-iX0016SJZZ (IX0016SJ): CD/Tuner Control Microcomputer (1/2)

Pin No.	Terminal Name	Port Name	Input/Output	Function
1,2	VL2	VL2	Input	LCD bias setting power input terminal.
3	P67/AN7	LID-SW (CD)	Input	CD cover position detection SW input terminal. "L" = CD cover CLOSED, "H" = CD cover OPEN.
4	P66/AN6	CLOCK (TUNER)	Output	PLL IC serial data transmission timing CLOCK output terminal.
5	P65/AN5	DATA (TUNER)	Input/Output	PLL IC serial data input/output terminal. Address 8 bits, sending/receiving 24-bit data.
6	P64/AN4	PERIOD(TUNER)	Output	PLL IC serial data transmission start/stop pulse output terminal.
7*	P63/AN3	T-MUTE (TUNER)	Output	Tuner output mute output terminal. "H" = Mute ON.
8*	P62/AN2	AREA (TUNER)	Input	Destination voltage detection input. Operates as an A/D input port, and when a reset is executed, detects the DC voltage present at the destination.
9	P61/AN1	KEY1	Input	Operation key input. Max. 8 keys.
10	P60/AN0	KET0	Input	Operation key input. Max. 8 keys.
11	P57/ADT	STEREO (TUNER)	Input	FM stereo broadcast detection input. "L" = When receiving a stereo broadcast .
12	P56/TOUT	MONO/ST (TUNER)	Output	FM mode output terminal read by the tuner IF IC. "H" = FM stereo mode ("L" = FM mono/AM band).
13	P55/CNTR1	WRQ (CD)	Input	Detection input to standby with sub Q code output from LC78623D.
14	P54/CNTR0	SD (TUMNER)	Input	Tuner carrier wave detection input. "L" = When a carrier wave is detected.
15	P53/RTP0	PU IN (CD)	Input	CD pickup position detection SW input terminal. "L" = Innermost circumference.
16	P52/RTP0	DRF (CD)	Input	HF level detection input terminal from LA9241M.
17	P51/INT3	CD-RESET (CD)	Output	LC78623D reset signal output.
18	P50/INT2	CQCK (CD)	Output	Serial data synchronous clock for LA9241M/LC78623D interface.
19	P47/SRDY	COIN (CD)	Output	LA9241M/LC78623D control command output terminal.
20	P46/SCLK	RWC (CD)	Output	READ/WRITE control output terminal to LA9241M/LC78623D.
21	P45/TXD	SL+ (CD)	Output	Slide motor forward control output terminal to LA9241M.
22	P44/RXD	SL- (CD)	Output	Slide motor back control output terminal to LA9241M.
23	P43/INT1	REMOCON	Input	Remote control signal input terminal Detected on the falling edge.
24	P42/INT0	SYS-STOP	Input	Input terminal for detecting a power failure or dead battery. "L" = The unit will enter the backup mode.
25	P41/Ø	SQOUT (CD)	Input	Sub code Q data input terminal from LC78623D.
26*	P40	N.C		
27	RESET	RESET	Input	Microcomputer reset signal input.
28*	P71/XCIN	N.C		No connect.
29*	P70/XCOUT	N.C		No connect.
30	XIN	XIN	Input	Main clock oscillator connection terminal.
31	XOUT	XOUT	Output	
32	VSS	VSS	—	Microcomputer power GND.
33*	P27	P-MUTE1	Output	Audio signal mute condition output terminal. "H" = Mute ON.
34	P26	P-MUTE2	Output	Audio signal mute condition output terminal. "L" = Mute ON.
35	P25	CD-FUNC	Input	CD function detection input terminal. "H" = CD function.
36	P24	SYNC-IN	Input	Record SW detection input terminal. "H" = Record SW ON.
37*	P23	N.C		No connect.
38*	P22	N.C		No connect.
39*	P21	N.C		No connect.
40	P20	N.C		No connect.
41*	P17/SEG31	N.C		No connect.
42*	P16/SEG30	N.C		No connect.
43*	P15/SEG29	N.C		No connect.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC501 RH-iX0016SJZZ (IX0016SJ): CD/Tuner Control Microcomputer (2/2)

Pin No.	Terminal Name	Port Name	Input/Output	Function
44*	P14/SWG28	N.C		No connect.
45*	P13/SEG27	N.C		No connect.
46*	P12/SEG26	N.C		No connect.
47*	P11/SEG25	N.C		No connect.
48	P10/SEG24	N.C		No connect.
49	P07/SEG23	N.C		No connect.
50	P06/SEG22	N.C		No connect.
51	P05/SEG21	N.C		No connect.
52	P04/SEG20	N.C		No connect.
53	P03/SEG19	N.C		No connect.
54*	P02/SEG18	N.C		No connect.
55	P01/SEG17	N.C		No connect.
56	P00/SEG16	SEG16	Output	LCD segment output.
57	P37/SEG15	SEG15	Output	LCD segment output.
58	P36/SEG14	SEG14	Output	LCD segment output.
59	P35/SEG13	SEG13	Output	LCD segment output.
60	P34/SEG12	SEG12	Output	LCD segment output.
61	SEG11	SEG11	Output	LCD segment output.
62	SEG10	SEG10	Output	LCD segment output.
63	SEG9	SEG9	Output	LCD segment output.
64	SEG8	SEG8	Output	LCD segment output.
65	SEG7	SEG7	Output	LCD segment output.
66	SEG6	SEG6	Output	LCD segment output.
67	SEG5	SEG5	Output	LCD segment output.
68	SEG4	SEG4	Output	LCD segment output.
69	SEG3	SEG3	Output	LCD segment output.
70	SEG2	SEG2	Output	LCD segment output.
71	SEG1	SEG1	Output	LCD segment output.
72	SEG0	SEG0	Output	LCD segment output.
73	VCC	VCC		Microcomputer power +5V.
74	VREF	VREF		A/D converter power +5V.
75	AVSS	AVSS		A/D converter power GND.
76	COM3	COM3	Output	LCD common output terminal.
77	COM2	COM2	Output	LCD common output terminal.
78	COM1	COM1	Output	LCD common output terminal.
76	COM0	COM0	Output	LCD common output terminal.
80	VL3	VL3	Input	LCD bias setting power input terminal.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

SHARP PARTS GUIDE

MODEL QT-CD161(S) QT-CD141(BK)

“HOW TO ORDER REPLACEMENT PARTS”

To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. No. |
| 3. PART NO. | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC Ceramic type
 VCK Ceramic type
 VCT Semiconductor type
 VC •• MF Cylindrical type (without lead wire)
 VC •• MN Cylindrical type (without lead wire)
 VC •• TV Square type (without lead wire)
 VC •• TQ Square type (without lead wire)
 VC •• CY Square type (without lead wire)
 VC •• CZ Square type (without lead wire)
 VC J .. The 13th character represents capacity difference.
 ("J" $\pm 5\%$, "K" $\pm 10\%$, "M" $\pm 20\%$, "N" $\pm 30\%$,
 "C" ± 0.25 pF, "D" ± 0.5 pF, "Z" $+80-20\%$.)


If there are no indications for the electrolytic capacitors, error is $\pm 20\%$.

Resistors

VRD Carbon-film type
 VRS Carbon-film type
 VRN Metal-film type
 VR •• MF Cylindrical type (without lead wire)
 VR •• MN Cylindrical type (without lead wire)
 VR •• TV Square type (without lead wire)
 VR •• TQ Square type (without lead wire)
 VR •• CY Square type (without lead wire)
 VR •• CZ Square type (without lead wire)
 VR J .. The 13th character represents error.
 ("J" $\pm 5\%$, "F" $\pm 1\%$, "D" $\pm 0.5\%$.)

If there are no indications for other parts, the resistors are $\pm 5\%$ carbon-film type.

NOTE:

Parts marked with “” are important for maintaining the safety of the set.
 Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

QT-CD161/141

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
INTEGRATED CIRCUITS				
IC1	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC2	VHILA1805//-1	J	AM	FM/AF IF MPX.,LA1805
IC3	VHITC9216P/-1	J	AL	PLL,TC9216P
IC101	VHIBA3311L/-1	J	AK	REC./P.B.Equalizer Amp.,BA3311L
IC202	VHILA4597//-1	J	AH	Power Amp.,LA4597
IC203	VHIIA7808P-1	J	AH	Voltage Regulator,KIA7808P
IC501	RH-IX0016SJZZ	J	BC	CD/Tuner Control Microcomputer,IX0016SJ
IC502	VHIPST9142/-1	J	AH	Reset,PST9142
IC801	VHILA9241M/-1	J	AS	Servo Amp.,LA9241M
IC802	VHILC78623D-1	J	AY	Servo/Signal Control,LC78623D
IC803	VHILA6541D/-1	J	AW	Focus/Tracking/Spin/Slide Driver,LA6541D

TRANSISTORS

Q1	VSKTC3194Y/-1	J	AD	Silicon,NPN,KTC3194 Y
Q3,4	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q5	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q6	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q9	VSKRA109M//-1	J	AC	Digital,PNP,KRA109 M
Q201,202	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q251	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q351	VSKTC8050D/-1	J	AD	Silicon,NPN,KTC8050 D
Q501	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q502	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q801	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q802	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y

DIODES

D1-4	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
D101-103	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
D201	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
D251,252	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
D301,302	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
D303	VHD1N4004//-1	J	AB	Silicon,1N4004
D501-506	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
△ D651-654	VHD1N4004//-1	J	AB	Silicon,1N4004
D802	VHDDS1SS133-1	J	AB	Silicon,DS1SS133-1
VD1,2	VHCKV1360NT-1	J	AF	Variable Capacitance,KV1360NT
VD3	VHCKV1591A2-3	J	AU	Variable Capacitance, KV1591A2
ZD1	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD501	VHEDZ5R6BSB-1	J	AC	Zener,5.6V,DZ5.6BSB

FILTERS

CF1	RFILF0001SJZZ	J	AD	FM IF
CF2	RFILA0002SJZZ	J	AH	AM IF
F1	RFILR0001SJZZ	J	AD	FM Band Pass Filter

TRANSFORMERS

T1	RCILI0001SJZZ	J	AD	FM IF
T2	RCILI0002SJZZ	J	AD	FM Detection
T3	RCILI0003SJZZ	J	AD	AM IF
△ T601	RTRNP0001SJZZ	J	AP	Power

COILS

L1	RCILR0004SJZZ	J	AE	FM RF
L2	RCILB0011SJZZ	J	AF	FM,OSC
L3	CCORF0002SJ09	J		AM Bar Antenna
L4	RCILB0012SJZZ	J	AF	AM,OSC
L5	VP-CH471K0000	J	AB	470 μH,Choke
L301	RCILB0003SJZZ	J	AD	OSC,Bias
L501	VP-CH101K0000	J	AB	100 μH,Choke
L801	VP-DHR82K0000	J	AE	0.82 μH,Choke
L802	VP-DHR68K0000	J	AC	0.68 μH

VARIABLE RESISTORS

VR1	RVR-M0001SJZZ	J	AC	6.8 kohms (B),Semi-VR [VCO]
VR201	RVR-B0003SJZZ	J	AK	20 kohms (B),Semi-VR [Volume]

VARIABLE CAPACITOR

TC1	RTO-H1003SJZZ	J	AG	Trimmer
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VIBRATORS

X1	RCRSB0001SJZZ	J	AN	Crystal,4.5 MHz
XL501	RCRM-0003SJZZ	J	AK	Ceramic,4.19 MHz
XL801	RCRM-0002SJZZ	J	AE	Ceramic,16.93 MHz

CAPACITORS

C2	VCTYPACU103M	J	AE	0.01 μF,16V
C3	VCCCPA1HH4R7C	J	AA	4.7 pF (CH),50V
C4	VCCCPA1HH270J	J	AA	27 pF (CH),50V
C5,6	VCTYPACU103M	J	AE	0.01 μF,16V
C7	VCKYPA1HB102K	J	AA	0.001 μF,50V
C8	VCCCPA1HH150J	J	AA	15 pF (CH),50V
C9	VCCCPA1HH330J	J	AA	33 pF (CH),50V
C10	VCCUPA1HJ240J	J	AB	24 pF (UJ),50V
C11	VCCCPA1HH220J	J	AA	22 pF (CH),50V
C12	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C13	RC-GZA476AF1C	J	AB	47 μF,16V,Electrolytic
C14	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C16	VCTYPACU223M	J	AB	0.022 μF,16V
C17	VCKYPA1HF473Z	J	AB	0.047 μF,50V
C18	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C19	VCCUPA1HJ120J	J	AA	12 pF (UJ),50V
C20	VCKYPA1HB471K	J	AA	470 pF,50V
C21	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C22	VCTYPACU103M	J	AE	0.01 μF,16V
C24	RC-GZA225AF1H	J	AB	2.2 μF,50V,Electrolytic
C25	VCKYPA1HB102K	J	AA	0.001 μF,50V
C26,27	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C28	RC-GZA225AF1H	J	AB	2.2 μF,50V,Electrolytic
C29	VCCCPA1HH120J	J	AA	12 pF (CH),50V
C30	VCCCPA1HH150J	J	AA	15 pF (CH),50V
C31,32	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C33	RC-GZA226AF1C	J	AB	22 μF,16V,Electrolytic
C34	RC-GZA227AF1A	J	AB	220 μF,10V,Electrolytic
C35	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C36	VCKYPA1HB222K	J	AA	0.0022 μF,50V
C37	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C38	VCTYPACU183M	J	AC	0.018 μF,16V
C40	VCKYPA1HB471K	J	AA	470 pF,50V
C41,42	RC-GZA335AF1H	J	AB	3.3 μF,50V,Electrolytic
C43	VCQSMV1HS152J	J	AB	0.0015 μF,50V,Styrol
C45,46	VCTYPACU223M	J	AB	0.022 μF,16V
C47-49	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic
C50	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C51	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic
C52	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C56	VCKYPA1HF103Z	J	AB	0.01 μF,16V
C57	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic
C58	VCKYPA1HF103Z	J	AB	0.01 μF,16V
C59	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C60	VCKYPA1HB101K	J	AA	100 pF,50V
C70	VCKYPA1HB102K	J	AA	0.001 μF,50V
C71	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C72	VCKYPA1HB102K	J	AA	0.001 μF,50V
C105,106	VCKYPA1HB182K	J	AB	0.0018 μF,50V
C107,108	VCKYPA1HB821K	J	AA	820 pF,50V
C109,110	VCKYPA1HB271K	J	AA	270 pF,50V
C111,112	VCKYPA1HB331K	J	AA	330 pF,50V
C113,114	RC-GZA476AF1C	J	AB	47 μF,16V,Electrolytic
C115,116	VCQYKA1HM183K	J	AB	0.018 μF,50V,Mylar
C117,118	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic
C119	RC-GZA225AF1H	J	AB	2.2 μF,50V,Electrolytic
C120	RC-GZA476AF1C	J	AB	47 μF,16V,Electrolytic
C121,122	VCKYPA1HF103Z	J	AB	0.01 μF,16V
C123	RC-GZA227AF1A	J	AB	220 μF,10V,Electrolytic
C151,152	VCQYKA1HM393K	J	AB	0.039 μF,50V,Mylar
C215,216	VCQYKA1HM273K	J	AB	0.027 μF,50V,Mylar
C217,218	VCKYPA1HB272K	J	AA	0.0027 μF,50V
C219,220	VCQYKA1HM683K	J	AB	0.068 μF,50V,Mylar
C221,222	VCKYPA1HB102K	J	AA	0.001 μF,50V
C223,224	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic
C225	RC-GZA227AF1E	J	AB	220 μF,25V,Electrolytic
C226	VCKYPA1HF223Z	J	AB	0.022 μF,50V
C227	RC-GZA478AF1E	J		4700 μF,25V,Electrolytic
C228	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic
C229,230	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C231,232	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar	R9	VRD-ST2CD104J	J	AA	100 kohm,1/6W
C233,234	RC-GZA477AF1A	J	AC	470 μF,10V,Electrolytic	R10	VRD-ST2CD683J	J	AA	68 kohms,1/6W
C252	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R11	VRD-ST2CD563J	J	AA	56 kohms,1/6W
C301	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic	R12	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
C302	VCKYPA1HF473Z	J	AB	0.047 μF,50V	R13	VRD-ST2CD391J	J	AA	390 ohms,1/6W
C351	VCQYKA1HM222K	J	AA	0.0022 μF,50V,Mylar	R15	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
C352	RC-GZA227AF1A	J	AB	220 μF,10V,Electrolytic	R16	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
C353	VCQYKA1HM562K	J	AA	0.0056 μF,50V,Mylar	R17	VRD-ST2CD103J	J	AA	10 kohm,1/6W
C354	VCQYKA1HM223K	J	AB	0.022 μF,50V,Mylar	R18	VRD-ST2CD473J	J	AA	47 kohms,1/6W
C501	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic	R20	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
C502	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R24	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
C503	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic	R25	VRD-ST2CD333J	J	AA	33 kohms,1/6W
C504,505	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R29	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
C506	RC-GZA225AF1H	J	AB	2.2 μF,50V,Electrolytic	R30	VRD-ST2CD153J	J	AA	15 kohms,1/6W
C508	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R35,36	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
C509	RC-GZA104AF1H	J	AB	0.1 μF,50V,Electrolytic	R37,38	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
C510	VCTYPA1CU104M	J	AB	0.1 μF,16V	R39	VRD-ST2CD103J	J	AA	10 kohm,1/6W
C511~513	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R42	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
C516	VCKYPA1HB101K	J	AA	100 pF,50V	R43	VRD-ST2CD473J	J	AA	47 kohms,1/6W
C519	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic [QT-CD161 Only]	R44	VRD-ST2EE181J	J	AA	180 ohms,1/4W
C520	VCKYPA1HF103Z	J	AB	0.01 μF,16V	R45	VRD-ST2EE221J	J	AA	220 ohms,1/4W
C521	VCKYPA1HB472K	J	AB	0.0047 μF,50V	R46~48	VRD-ST2CD563J	J	AA	56 kohms,1/6W
C651~654	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R50~52	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C801	VCKYPA1HF103Z	J	AB	0.01 μF,16V	R56	VRD-ST2CD470J	J	AA	47 ohms,1/6W
C802	RC-GZA476AF1C	J	AB	47 μF,16V,Electrolytic	R70	VRD-ST2CD223J	J	AA	22 kohms,1/6W
C803	RC-GZA104AF1H	J	AB	0.1 μF,50V,Electrolytic	R71	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
C804	VCKYPA1HB102K	J	AA	0.001 μF,50V	R72	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C805,806	VCTYPA1CU333M	J	AB	0.033 μF,16V	R101,102	VRD-ST2CD331J	J	AA	330 ohms,1/6W
C807	RC-GZA104AF1H	J	AB	0.1 μF,50V,Electrolytic	R103,104	VRD-ST2CD123J	J	AA	12 kohms,1/6W
C808	VCTYPA1CU683M	J	AB	0.068 μF,16V	R105,106	VRD-ST2CD153J	J	AA	15 kohms,1/6W
C809	VCTYPA1CU473M	J	AB	0.047 μF,16V	R107,108	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C810	VCKYPA1HB181K	J	AA	180 pF,50V	R109,110	VRD-ST2CD121J	J	AA	120 ohms,1/6W
C811	VCTYPA1CU104M	J	AB	0.1 μF,16V	R113,114	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
C812	VCKYPA1HB331K	J	AA	330 pF,50V	R115~118	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
C813	VCTYPA1CU104M	J	AB	0.1 μF,16V	R119,120	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
C814	VCTYPA1CU103M	J	AE	0.01 μF,16V	R121,122	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
C815	VCKYPA1HB472K	J	AB	0.0047 μF,50V	R123,124	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
C816	VCKYPA1HB102K	J	AA	0.001 μF,50V	R125	VRD-ST2CD684J	J	AA	680 kohms,1/6W
C817	RC-GZA474AF1H	J	AA	0.47 μF,50V,Electrolytic	R151,152	VRD-ST2CD223J	J	AA	22 kohms,1/6W
C818	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic	R153,154	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
C819	RC-GZA476AF1C	J	AB	47 μF,16V,Electrolytic	R219,220	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
C820	VCKYPA1HB332K	J	AA	0.0033 μF,50V	R221,222	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C821	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic	R223,224	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
C822	VCKYPA1HB221K	J	AA	220 pF,50V	R225	VRD-ST2CD104J	J	AA	100 kohm,1/6W
C830	VCCCPA1HH2R0C	J	AA	2 pF (CH),50V	R227,228	VRD-ST2EE121J	J	AA	120 ohms,1/4W [QT-CD161 Only]
C831	VCKYPA1HB272K	J	AA	0.0027 μF,50V	R230	VRD-ST2EE2R7J	J	AA	2.7 ohms,1/4W
C832	VCCCPA1HH270J	J	AA	27 pF (CH),50V	R251	VRD-ST2CD103J	J	AA	10 kohm,1/6W
C833	VCKYPA1HB102K	J	AA	0.001 μF,50V	R252	VRD-ST2CD223J	J	AA	22 kohms,1/6W
C834	VCTYPA1CU333M	J	AB	0.033 μF,16V	R253	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
C835	RC-GZA104AF1H	J	AB	0.1 μF,50V,Electrolytic	R254	VRD-ST2CD103J	J	AA	10 kohm,1/6W
C837	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic	R255	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
C838	VCTYPA1CU103M	J	AE	0.01 μF,16V	R256	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
C839	VCTYPA1CU104M	J	AB	0.1 μF,16V	R351	VRD-ST2EE331J	J	AA	330 ohms,1/4W
C840	RC-GZA334AF1H	J	AA	0.33 μF,50V,Electrolytic	R352	VRD-ST2EE151J	J	AA	150 ohms,1/4W
C841,842	VCTYPA1CU473M	J	AB	0.047 μF,16V	R353	VRD-ST2EE473J	J	AA	47 kohms,1/4W
C843	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic	R354	VRD-ST2EE100J	J	AA	10 ohm,1/4W
C844	RC-GZA337AF1A	J	AB	330 μF,10V,Electrolytic	R455,456	VRD-ST2CD153J	J	AA	15 kohms,1/6W
C845	RC-GZA475AF1H	J	AB	4.7 μF,50V,Electrolytic	R457,458	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
C846	RC-GZA337AF1A	J	AB	330 μF,10V,Electrolytic	R501	VRD-ST2EE151J	J	AA	150 ohms,1/4W
C847	VCTYPA1CU103M	J	AE	0.01 μF,16V	R502	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
C848	RC-GZA105AF1H	J	AB	1 μF,50V,Electrolytic	R503	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
C849	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R504	VRD-ST2CD104J	J	AA	100 kohm,1/6W
C850	VCTYPA1CU104M	J	AB	0.1 μF,16V	R505	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
C851	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R506	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
C867,868	RC-GZA106AF1C	J	AB	10 μF,16V,Electrolytic	R507	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C869,870	VCKYPA1HB222K	J	AA	0.0022 μF,50V	R508	VRD-ST2CD563J	J	AA	56 kohms,1/6W
C873	VCKYPA1HF103Z	J	AB	0.01 μF,16V	R509,510	VRD-ST2CD102J	J	AA	1 kohm,1/6W
C887	VCKYPA1HF223Z	J	AB	0.022 μF,50V	R511~513	VRD-ST2CD561J	J	AA	560 ohms,1/6W
C888	VCKYPA1HF103Z	J	AB	0.01 μF,16V	R517,518	VRD-ST2CD103J	J	AA	10 kohm,1/6W
C890	RC-GZA107AF1A	J	AB	100 μF,10V,Electrolytic	R519	VRD-ST2CD561J	J	AA	560 ohms,1/6W
RESISTORS					R520~522	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R1	VRD-ST2EE220J	J	AA	22 ohms,1/4W	R523	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R2	VRD-ST2CD104J	J	AA	100 kohm,1/6W	R524	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R3	VRD-ST2CD333J	J	AA	33 kohms,1/6W	R526~528	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R4	VRD-ST2CD100J	J	AA	10 ohm,1/6W	R530,531	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R5	VRD-ST2CD103J	J	AA	10 kohm,1/6W	R532	VRD-ST2CD102J	J	AA	1 kohm,1/6W [QT-CD161 Only]
R6	VRD-ST2CD561J	J	AA	560 ohms,1/6W	R533~541	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R7	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W	R542	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R8	VRD-ST2CD473J	J	AA	47 kohms,1/6W	R543	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
					R544	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
					R545	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W

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NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R546	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R547	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R548	VRD-ST2EE470J	J	AA	47 ohms,1/4W [QT-CD161 Only]
R549,550	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R552	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R801	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R802	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R803	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R804	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R805	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R806	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R807	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R808	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R809	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R810	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R811	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R812	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R813	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R814	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R815	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R816	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R817	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R819	VRD-ST2CD393J	J	AA	39 kohms,1/6W
R820	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R821	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R822	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R823	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R824	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R825	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R826,827	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R828~831	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R832	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R833	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R834	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R835	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R836,837	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R838	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R839,840	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R842	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R849	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R856	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R857	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R858	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R860	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R871	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R873,874	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R875,876	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R880	VRD-ST2CD101J	J	AA	100 ohm,1/6W

OTHER CIRCUITRY PARTS

BI801/CNS801	QCNWN0113SJZZ	J	AF	Connector Ass'y,8Pin
BI802/CNS802	QCNWN0114SJZZ	J	AD	Connector Ass'y,5Pin
BI803/CNS803	QCNWN0115SJZZ	J	AE	Connector Ass'y,6Pin
CNP101	QCNCW001DSJZZ	J	AC	Socket,4Pin
CNP201	QCNCW001CSJZZ	J	AC	Socket,3Pin
CNP602	QCNCW002CSJZZ	J	AD	Socket,3Pin
CNS101	—	—	—	Connector Ass'y,4Pin (Not Replacement Item)
CNS201	QCNWN0001SJZZ	J	AD	Connector Ass'y,3Pin
CNS602	QCNWN0132SJZZ	J	AE	Connector Ass'y,3Pin
FW201	QCNWN0133SJZZ	J	AE	Flat Wire,5Pin
FW202	QCNWN0140SJZZ	J	AE	Flat Wire,3Pin [QT-CD161 Only]
FW203	QCNWN0144SJZZ	J	AE	Flat Wire,8Pin
FW501	QCNWN0134SJZZ	J	AE	Flat Wire,3Pin
FW601	QCNWN0089SJZZ	J	AG	Flat Wire,2Pin
J39	RCORF0001SJZZ	J	AC	Core
J100	RCORF0001SJZZ	J	AC	Core
J201	QJAKM0007AWZZ	J	AF	Jack,Headphones [QT-CD161 Only]
LCD501	RV-LX0005SJZZ	J	AU	LCD
M601	9GD192112343W	J	AX	Motor with Pulley [Tape]
M701	RMOTV0408AFM3	J	AN	Motor with Chassis [Spindle]
M702	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
RX501	VHLN61V380A-1	J	AN	Remote Sensor [QT-CD161 Only]
△ SO601	QSOCA0001SJZZ	J	AE	AC Socket
SP501,502	VSP0010PBT98S	J	AL	Speaker,Woofers
SW102	QSW-S0001SJZZ	J	AD	Switch,Slide Type [Record/Playback]
SW201	QSW-S0008SJZZ	J	AG	Switch,Slide Type [Function/Power]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
SW202	QSW-P0001SJZZ	J	AD	Switch,Push Type [X-Bass]
SW501	QSW-K0001SJZZ	J	AC	Switch,Key Type [Tuner Up]
SW502	QSW-K0001SJZZ	J	AC	Switch,Key Type [Tuner Down]
SW503	QSW-K0001SJZZ	J	AC	Switch,Key Type [Band]
SW504	QSW-K0001SJZZ	J	AC	Switch,Key Type [Memory]
SW505	QSW-K0001SJZZ	J	AC	Switch,Key Type [Preset Down]
SW506	QSW-K0001SJZZ	J	AC	Switch,Key Type [Preset Up]
SW507	QSW-F0001SJZZ	J	AD	Switch,Leaf/Skeleton Type [CD Lid Open/Close]
SW601	9GD192112343W	J	AX	Switch,Push Type [Tape Main]
SW702	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
W601	QCNWN0101SJZZ	J	AC	Flat,Wire,2Pin

CD MECHANISM PARTS

301	NGERH0586AFZZ	J	AC	Gear,Middle
302	NGERH0587AFZZ	J	AC	Gear,Drive
303	MLEVP1054AFZZ	J	AC	Rail,Guide
304	NSFTM0291AFFW	J	AD	Shaft,Guide
305	PCUSG0613AFZZ	J	AC	Cushion
△ 306	RCTR8179AFZZ	J	BG	Pickup Unit Ass'y
701	XBSSD26P06000	J	AA	Screw,ø2.6×6mm
702	XHBSD20P05000	J	AA	Screw,ø2×5mm
703	XHBSD20P03000	J	AA	Screw,ø2×3mm
704	LX-WZ1070AFZZ	J	AA	Washer,ø4.5×ø1.5×0.25mm
M701	RMOTV0408AFM3	J	AN	Motor with Chassis [Spindle]
M702	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
SW702	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CABINET PARTS

201	GCABA1029SJM1	J	BC	Front Cabinet Ass'y [QT-CD161]
201	GCABA1032SJM1	J	BA	Front Cabinet Ass'y [QT-CD141]
202	GCABC1029SJSJ	J	AV	Top Cabinet [QT-CD161]
202	GCABC1029SJSB	J	AR	Top Cabinet [QT-CD141]
203	GCABB1029SJSJ	J	AZ	Rear Cabinet [QT-CD161]
203	GCABB1032SJSJ	J	AV	Rear Cabinet [QT-CD141]
204	HPNLC1032SJSJ	J	AS	Panel,Control [QT-CD161]
204	HPNLC1036SJSJ	J	AK	Panel,Control [QT-CD141]
205	HDECQ0022SJSJ	J	AF	Decoration Plate [QT-CD161]
205	HDECQ0022SJSB	J	AE	Decoration Plate [QT-CD141]
206	JKNBK0016SJSJ	J	AE	Knob,Volume
207	LHLDW1001SJZZ	J	AD	Nylon Band
208	MSPRC0002SJFD	J	AC	Spring,Battery,+/-
209	JHNDP1001SJSJ	J	AE	Handle [QT-CD141]
209	JHNDP1002SJSB	J	AM	Handle [QT-CD161]
210	QANTR0003SJZZ	J	AL	Rod Antenna
211	MSPRZ0001SJFD	J	AC	Spring,Rod Antenna
212	GFTAB1001SJSJ	J	AD	Battery Compartment Lid [QT-CD141]
212	GFTAB1005SJSB	J	AH	Battery Compartment Lid [QT-CD161]
213	JKNBK0018SJSJ	J	AC	Knob,X-BASS
214	LHLDZ1015SJSJ	J	AF	Button,Unit [QT-CD161]
214	LHLDZ1015SJSB	J	AF	Button,Unit [QT-CD141]
215	JKNBK0017SJSJ	J	AC	Knob,Function [QT-CD161]
215	JKNBK0017SJSB	J	AC	Knob,Function [QT-CD141]
216	GFTAC1001SJSJ	J	AE	Cassette Lid [QT-CD141]
216	GFTAC1001SJSD	J	AM	Cassette Lid [QT-CD161]
217	MSPRD0001SJFD	J	AC	Spring,Cassette Lid
218	JBTN-0001SJSJ	J	AC	Button,Pause [QT-CD141]
218	JBTN-0007SJSB	J	AC	Button,Pause [QT-CD161]
219	JBTN-0002SJSJ	J	AC	Button,Stop [QT-CD141]
219	JBTN-0008SJSB	J	AC	Button,Stop [QT-CD161]
220	JBTN-0003SJSJ	J	AC	Button,FF [QT-CD141]
220	JBTN-0009SJSB	J	AC	Button,FF [QT-CD161]
221	JBTN-0004SJSJ	J	AC	Button,REW [QT-CD141]
221	JBTN-0010SJSB	J	AC	Button,REW [QT-CD161]
222	JBTN-0005SJSJ	J	AC	Button,Play [QT-CD141]
222	JBTN-0011SJSB	J	AC	Button,Play [QT-CD161]
223	JBTN-0006SJSJ	J	AC	Button,Rec [QT-CD141]
223	JBTN-0012SJSB	J	AC	Button,Rec [QT-CD161]
224	LANGK0001SJFW	J	AC	Bracket,Button
225	PGUMS0001SJZZ	J	AB	Leg,Cushion
226	GFTAT1001SJSJ	J	AE	CD Lid [QT-CD141]
226	GFTAT1001SJSD	J	AN	CD Lid [QT-CD161]
227	CHLDM1001SJ01	J	AG	Stabilizer Ass'y
227- 1	—	—	—	Stabilizer (Not Replacement Item)
227- 2	PMAGF0002AWZZ	J	AE	Magnet
228	MSPRP0001SJFW	J	AC	Lever,Record
230	MSPRC0001SJFN	J	AC	Spring,Battery,-

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
231	PRDAR0001SJZZ	J	AD	Heat Sink
232	LHLDA1001SJZZ	J	AC	Holder,Bar Antenna
233	CMECB0001SJ01	J	AY	Tape Mechanism Ass'y
233- 1	9GD192104309	J	AR	Pinch Roller Arm Ass'y
233- 2	9GD192107039	J	AE	Belt,RF
233- 3	9GD192109389	J	AE	Belt,Main
233- 4	9GD62070114	J	AL	Head,Playback/Record
233- 5	9GD62091010	J	AM	Head,Erase
233- 6(M601)	9GD192112343W	J	AX	Motor With Pulley [Tape]
233- 7(SW601)	9GD6401011499	J	AE	Switch,Leaf Type [Tape Main]
234	TSPC-0079SJZZ	J	AF	Label,Specifications [For U.S.A.]
234	TSPC-0080SJZZ	J		Label,Specifications [Except for U.S.A.]
235	CGERH0001SJ01	J	AF	Gear,Damper
236	LHLDZ1016SJZZ	J	AE	Holder,LCD
237	MSPRC0003SJFE	J	AF	Spring,Back Up
240	MSPRD0002SJFD	J	AC	Spring,CD Lid
601	XUBSD30P12000	J	AA	Screw,ø3×12mm
602	XUBSD30P20000	J	AA	Screw,ø3×20mm
603	XUBSD30P10000	J	AA	Screw,ø3×10mm
604	XUBSD25P10000	J	AB	Screw,ø2.5×10mm
605	XWHS28-08120	J	AB	Washer,ø2.8×ø12×0.8mm
606	XUPSD25P08000	J	AB	Screw,ø2.5×8mm
607	XUBSD30P08000	J	AA	Screw,ø3×8mm
608	XHBSD20P03000	J	AA	Screw,ø2×3mm
609	XESBF30P10000	J	AA	Screw,ø3×10mm

ACCESSORIES

△	QACCU0001SJ00	J	AR	AC Power Supply Cord
	TINSE0023SJZZ	J	AH	Operation Manual [For U.S.A./Central America] [QT-CD161]
	TINSE0025SJZZ	J	AP	Operation Manual [For U.S.A./Central America] [QT-CD141]
	TINSZ0037SJZZ	J		Operation Manual [Except for U.S.A./Central America] [QT-CD161]
	TINSZ0038SJZZ	J		Operation Manual [Except for U.S.A./Central America] [QT-CD141]
	TLABN0053SJZZ	J	AE	Label,Serial No. [QT-CD161]
	TLABN0054SJZZ	J		Label,Serial No. [QT-CD141]
	TLABR1041SJZZ	J	AD	Label,Bar Code [QT-CD141]
	TLABR1043SJZZ	J	AE	Label,Bar Code [QT-CD161]
	TLABZ0026SJZZ	J	AE	Label,Feature [QT-CD161]
	TLABZ0027SJZZ	J	AG	Label,Feature [QT-CD141]
	RRMCG0015SJSA	J	AX	Remote Control [QT-CD161 Only]
	HTR0211-720010	J		Battery Lid,Remote Control [QT-CD161 Only]

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~7	DCEK-0004SJ03	J	—	Main/Headphones/Terminal/ Battery/Battery/Switch/Spacer (Combined Ass'y)[QT-CD161]
PWB-A1~6	DCEK-0004SJ06	J	—	Main/Terminal/Battery/Battery/ Switch/Spacer (Combined Ass'y)[QT-CD141]
PWB-B	QPWBF3895AFZZ	J	AC	CD Motor (PWB Only)

OTHER SERVICE PART

UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner
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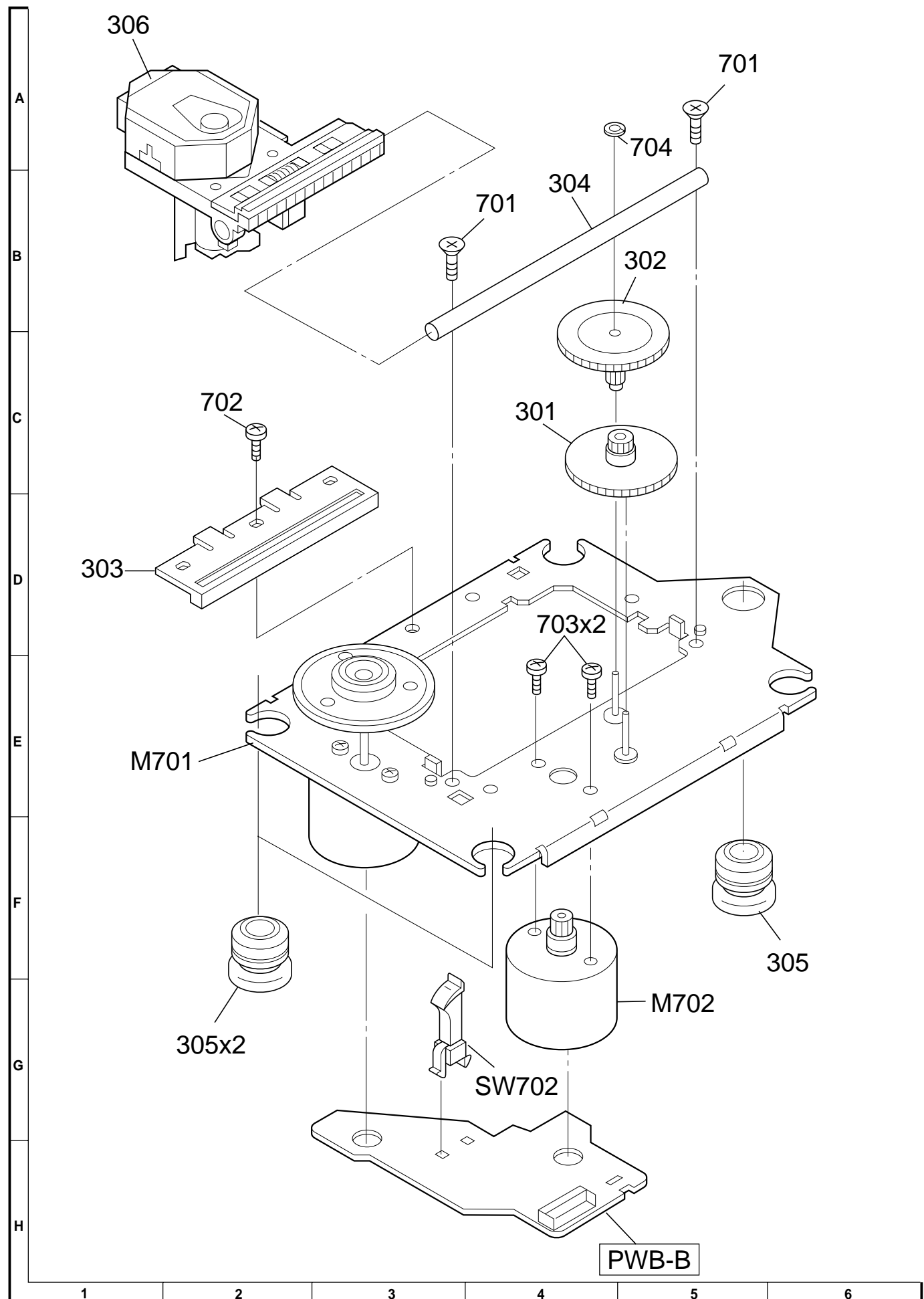


Figure 5 CD MECHANISM EXPLODED VIEW

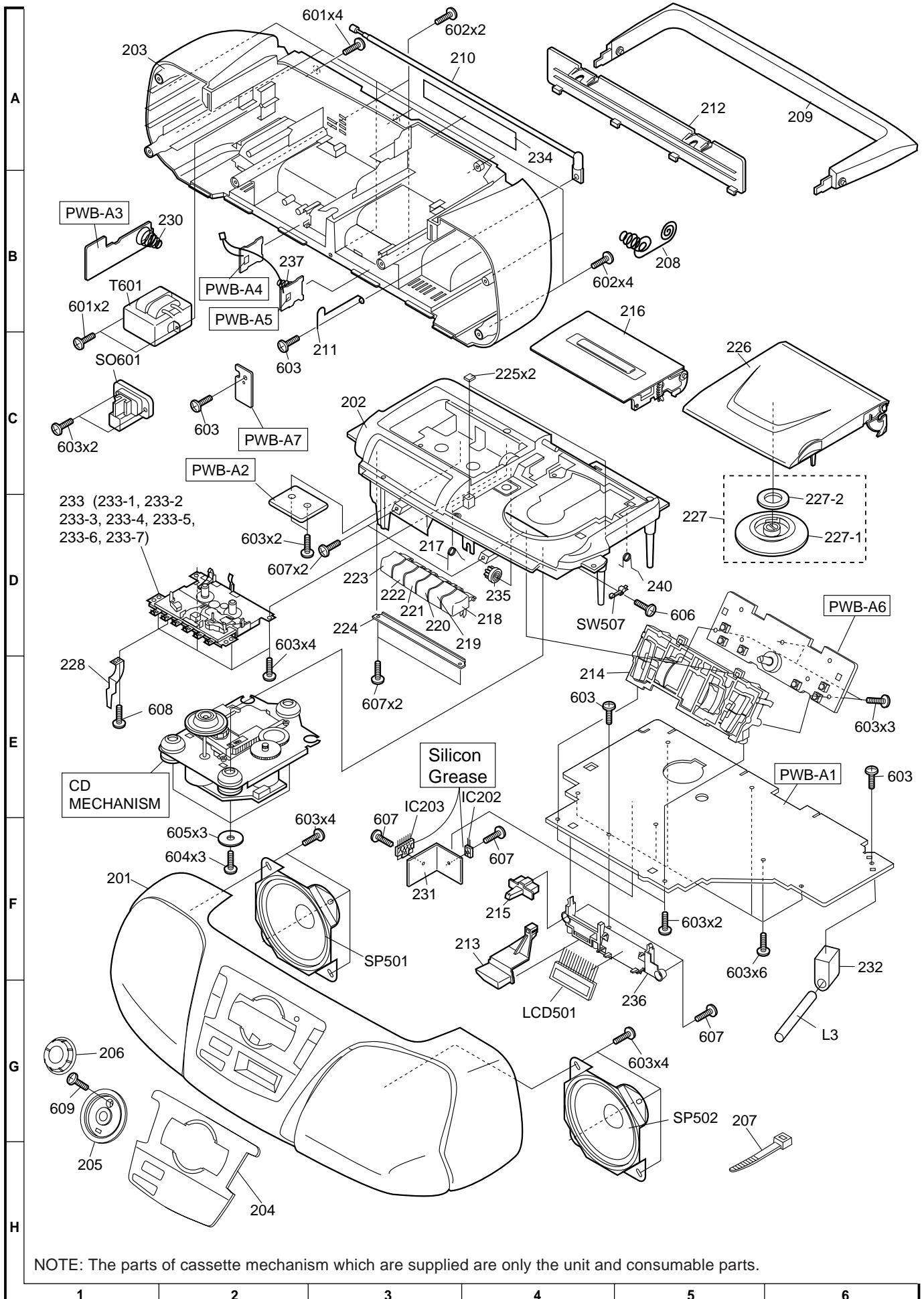
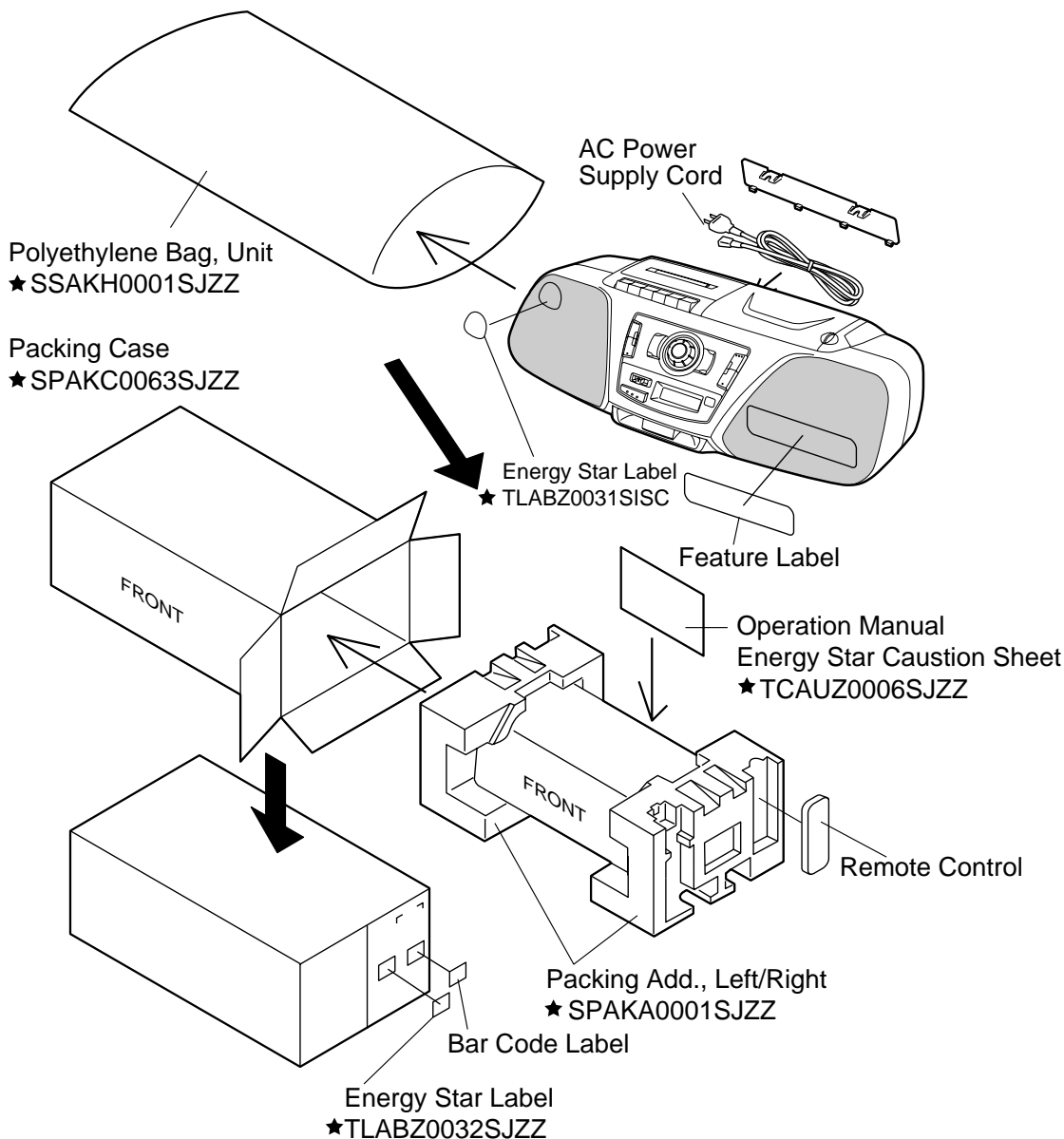


Figure 6 CABINET EXPLODED VIEW

PACKING OF THE SET (FOR U.S.A. ONLY)

- Setting position of switches and knobs

Tape Mechanism Control	STOP STATE
TUNING	LOW
POWER/FUNCTION	OFF/TAPE
X-BASS	OFF
VOLUME	LOW



★ : Not Replacement Item

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